3 1761 06242852 9

DICAL PSYCHOLOGY
AND
CHICAL RESEARCH

. W. MITCHELL

H.2
M

UNIVERSITY OF TORONTO
DEPARTMENT OF PSYCHOLOGY

M 4

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

http://www.archive.org/details/medicalpsycholog00mitcuoft

MEDICAL PSYCHOLOGY
AND
PSYCHICAL RESEARCH

BOOKS ON PSYCHOLOGY

AN INTRODUCTION TO SOCIAL PSYCHOLOGY. By Professor William McDougall, F.R.S. Sixteenth Edition. Crown 8vo. 8*s*. 6*d*. net.

BODY AND MIND: A History and a Defence of Animism. By William McDougall, F.R.S. With 13 Diagrams. Fifth Edition. Demy 8vo. 12*s*. 6*d*. net.

NATIONAL WELFARE AND NATIONAL DECAY. By William McDougall, F.R.S., Professor of Psychology at Harvard University. Crown 8vo. 6*s*. net.

PSYCHOLOGY. A Short Account of the Human Mind. By F. S. Granger, M.A., D.Litt. (Lond.). Fourth Edition. Crown 8vo. 5*s*. net.

AN INTRODUCTION TO PSYCHOLOGY. By S. S. Brierley, M.A. Crown 8vo. 5*s*. net.

THE PSYCHOLOGY OF SOCIETY. By Morris Ginsberg, M.A., Lecturer in Philosophy at University College, London. Crown 8vo. 5*s*. net.

THE PSYCHOLOGY OF EVERYDAY LIFE. By James Drever, M.A., B.Sc., D.Phil. Second Edition. Crown 8vo. 6*s*. net.

THE PSYCHOLOGY OF INDUSTRY. By James Drever, M.A., B.Sc., D.Phil. Crown 8vo. 5*s*. net.

THE PSYCHOLOGY OF PERSUASION. By William Macpherson, M.A. Crown 8vo. 6*s*. net.

PSYCHO-ANALYSIS. By R. H. Hingley, B.A. Crown 8vo. 6*s*. net.

PSYCHOLOGY AND FOLKLORE. By R. R. Marett, M.A., D.Sc. Crown 8vo. 7*s*. 6*d*. net.

THE PSYCHOLOGY OF MEDICINE. By T. W. Mitchell, M.D. Crown 8vo. 6*s*. net.

PSYCHOLOGY: A Study of Mental Life. By Robert S. Woodworth, Ph.D. Crown 8vo. 8*s*. 6*d*. net.

THE LIFE OF THE SPIRIT AND THE LIFE OF TO-DAY. By Evelyn Underhill. Crown 8vo. 7*s*. 6*d*. net.

PSYCHOLOGY AND MORALITY. By J. A. Hadfield, M.A., M.B., Ch.B. Crown 8vo. 6*s*. net.

THE PSYCHOLOGY OF THE CRIMINAL. With Special Reference to Psycho-Analysis. By M. Hamblin Smith, M.A., M.D.

MEDICAL PSYCHOLOGY
AND
PSYCHICAL RESEARCH

BY

homas alker

T. W. MITCHELL, M.D.

PRESIDENT OF THE SOCIETY FOR PSYCHICAL RESEARCH
AUTHOR OF "THE PSYCHOLOGY OF MEDICINE"

UNIVERSITY OF TORONTO

METHUEN & CO. LTD.
36 ESSEX STREET W.C.
LONDON

MN
M

595270
19. 10. 54

First Published in 1922

PREFACE

THIS book deals with those branches of Medical Psychology which have thrown most light on the problems of Psychical Research, namely, Hypnotism, Hysteria, and Multiple Personality. The greater part of the contents has already been published in the form of papers contributed to the *Proceedings of the Society for Psychical Research* during the last fifteen years. "The Appreciation of Time by Somnambules" (Chapter I) appeared in 1907; "A Study in Hysteria" (Chapter II) in 1912; "The Doris Fischer Case of Multiple Personality" (Chapter V) in 1920: these papers are reprinted here almost unaltered. The substance of Chapters III, IV, and VI was embodied in a paper entitled "Some Types of Multiple Personality" which appeared in *Proceedings, S.P.R.* in 1912; but in the present book considerable additions to the original paper have been made. The greater part of Chapter IV (in which is described what I have called the Jekyll and Hyde type of double personality), and also part of Chapter VI, are now published for the first time.

I desire to express my thanks to the Council of the Society for Psychical Research for permission to republish papers contributed by me to the *Proceedings* of that Society.

T. W. M.

HADLOW,
KENT
August, 1922

CONTENTS

CHAP. PAGE

I THE APPRECIATION OF TIME BY SOMNAMBULES . 1

II A STUDY IN HYSTERIA 69

III MULTIPLE PERSONALITY 103

IV MULTIPLE PERSONALITY (*Continued*) . . . 139

V THE DORIS FISCHER CASE OF MULTIPLE PERSONALITY 168

VI BODY AND SOUL IN MULTIPLE PERSONALITY . 214

INDEX 241

MEDICAL PSYCHOLOGY AND PSYCHICAL RESEARCH

CHAPTER I

THE APPRECIATION OF TIME BY SOMNAMBULES

I

MANY classifications of the different stages of hypnosis have been put forward, and it is difficult to find two authors who are in agreement as to how many stages may be recognized, or by what names they are to be known. All hypnotic subjects, however, may be divided into two great groups, according to whether the events of hypnosis are forgotten or not in the waking state; and the term "somnambule" has been very generally used to describe those who, when hypnosis is terminated, are totally amnesic for all that has happened during the trance.

Although some interesting observations in regard to appreciation of time may be made in the lighter stages of hypnosis, it is in somnambules that this power is most strikingly shown and may be most conveniently studied. All the observations recorded or referred to in this paper were made on somnambules, and with regard to my own cases I can declare with the greatest certainty that in every instance post-hypnotic amnesia was complete.

Every one who has done much practical hypnotic work must have observed the accuracy with which somnambules estimate time-intervals. If a somnambule is told in hypnosis to sleep for five minutes, ten minutes, or half an hour, and then wake up, it is found that awakening takes place exactly at the time mentioned, or that, if there is an error in the time-estimation, it is generally a very small one. It is also well known that this power of estimating time-intervals may persist into post-hypnotic life, so that an action suggested in hypnosis, to be performed in waking life after a certain interval, is generally fulfilled at the appointed time, notwithstanding that all knowledge of the suggestion is absent from the waking consciousness during the intervening period.

Although this association with the hypnotic state of what appears to be a supernormal power is well worthy of investigation, we possess very few detailed records of observations which might help us in elucidating the many difficulties which confront us when we try to bring the facts into line with our ordinary psychological beliefs. In the early days of the study of hypnotic phenomena, so much that appeared marvellous and inexplicable was found that the appreciation of time by somnambules must have seemed to be a very minor wonder. Even when the attention of the Nancy investigators was turned towards the subject, they seemed to be more surprised by the length of time which may elapse between the giving of a suggestion and its fulfilment than by the extraordinary accuracy with which time-intervals of less extent are estimated. One of Liégeois' subjects fulfilled a suggestion given in hypnosis a year previously,[1] and Beaunis produced, in one of his somnambules, a visual hallucination after an interval of 172 days.[2] In both cases the date on which the suggestion was to be fulfilled was given to the subject. Liégeois' suggestion was given, on October 12th, as falling due on " the same day next year," and the exact date was given by Beaunis in his suggestion.

---

[1] Liégeois, *De la Suggestion*, Paris, 1889, p. 340.

[2] Beaunis, *Le Somnambulisme Provoqué*, Paris, 1886, p. 233.

It was soon realized that such cases, however interesting and remarkable they may be from another point of view, have very little to do with any supposed power on the part of somnambules of unconsciously reckoning duration. Both Delboeuf and Edmund Gurney insisted on the distinction that must be made between cases in which a date is named and cases in which simply a length of time is given. For, in the former case, the fulfilment of the suggestion may be dependent on the ordinary laws of association, whilst in the latter it would seen to imply, as Paul Janet said, some " unknown faculty " of measuring time. It is, of course, a commonplace of hypnotic experimentation that a suggestion will be fulfilled, either in hypnosis or in post-hypnosis, on the giving of a pre-arranged signal. So, if a subject in hypnosis be told to do something on the first of January, the arrival of that day may suffice to revive the dormant memory of the command, and thus lead to its fulfilment. But if he be told to perform an act on the " sixty-ninth day from this," what is there about the sixty-ninth day to revive the hypnotic command ? The day, when it comes, as Gurney said, " carries no more sixty-ninthness about it than any other day " ; and unless we are to suppose some form of conscious watching and counting of the days as they pass, or some form of conscious calculation, whereby the terminal day is arrived at, and then fixed in the mind, the fulfilment of such a command seems inexplicable.

At the time when Beaunis and Liégeois recorded their observations, the possibility of subconscious mentation had not been distinctly formulated. The germs of the modern doctrine of the subliminal consciousness may now be seen to have been latent in the speculations of certain philosophers such as Fechner and Du Prel ; but the extravagant applications of the principle of the " Unconscious" by Eduard von Hartmann probably alienated the minds of scientific men from all consideration of a concept apparently so directly at variance with their empirical beliefs. So we find that the earliest explanations of the accurate fulfilment of post-hypnotic actions at a given time, or after a given interval, tended towards some hypothesis of "physiological" time-reckoning rather than towards the supposition that some form of consciousness which watches and counts the days as they pass may be concerned. Thus Beaunis imagined that some cerebral mechanism exists in men and animals which can somehow be set like a clock so as to produce a movement at a given time. It is, he said, owing to this mechanism that some people are able to wake up at a predetermined hour, and that an animal knows when it is feeding time.

Although the last word in the controversy has not yet been said, I think there is no need at present to re-argue this point of view. Notwithstanding the adherence of such eminent authorities as Münsterberg and Ribot to the view that all subconscious activity is merely physiological, it is now very widely admitted that the working of the cerebral mechanism concerned in the fulfilment of post-hypnotic acts has a psychical concomitant, existing, it may be, submerged in the depths of the stream of consciousness, and not to be discovered on introspection during waking life, yet capable in many instances of being brought to the surface by certain artifices, such as re-hypnotization, so that its existence and its persistence may be known by the subject, and may be made apparent to the most casual or most sceptical observer. It is, I think, no longer possible to doubt the reality of subconscious mentation, or to evade the implications which this admission entails.

In discussing phenomena which have been observed only in hypnotic somnambules, we need not take into consideration the different opinions which have been put forward in regard to the existence of a true subliminal self in all human beings; nor need we define the terms subliminal and subconscious so carefully as may be necessary in the examination of those wider problems which have arisen around the modern conception of human personality. Taking for granted the possibility, in somnambules, of mentation going on without the knowledge or attention of the waking consciousness—and evidence of this will be abundantly shown in the course of our investigation—it will suffice for our purpose to class all such mentation as subconscious or subliminal. And in doing so we need not bind ourselves to any particular beliefs which, on other grounds, may be held in regard to the higher problems that meet us at every step when we try to penetrate into those hidden recesses of man's being to which his subconscious mental life may seem to be the gateway.

That post-hypnotic reckoning of time-intervals is not merely physiological, but entails some concomitant mental action, was clearly shown by Gurney.[1] On March 3rd a suggestion to be fulfilled in thirty-nine days was given to one of his subjects during hypnosis. No reference to the command was made till March 19th, when he was suddenly asked, in the trance, how many days had elapsed since it was given. He instantly said 16, and added that there were 23 more to run. It was evident " that he was in some way actually counting the days as they passed." In another case an account of this process was obtained. The subject said that he generally thought about it in the morning early. Something seemed to say to him, " You've got to count." On being asked if that happened every day, he replied: " No, not every day—perhaps more like every other day. It goes from my mind; I never think of it during the day. I only know it's got to be done."

Gurney concluded from these cases that a somnambule who is told to perform a post-hypnotic act at the end of a certain number of days, subconsciously watches and counts the days as they pass. Notwithstanding that he himself had made many experiments which proved that somnambules are able to make subconscious calculations, Gurney did not think that in these cases of time-watching any calculation was made by which the terminal day was arrived at, and then fixed in the mind.

---

[1] Gurney: " Peculiarities of Certain Post-hypnotic States," *Proceedings S.P.R.*, Vol. IV., p. 290.

I have repeated Gurney's experiments on several somnambules, and I find that there is considerable variation in the methods used by them for ensuring the fulfilment of the act on the proper day. The method used by any particular subject seems to depend on various circumstances. In the first place, it will depend on his standard of education. If in the waking state he is not good at mental arithmetic, or if mental arithmetic is distasteful to him, he will probably use the most elementary method of arriving at the correct day, namely, simply counting the days as they pass. But if he can do sums mentally without difficulty he will generally make some calculation, either in hypnosis or subconsciously in post-hypnosis, so as to arrive at the terminal day, and then fix it in his mind. More important, however, than his arithmetical capacity, or his love for figures in the waking state, is the extent to which his subconscious mind has been trained by similar experiments. When such problems are given to a subject who has already made use of subconscious calculation in the solving of more difficult problems of a somewhat similar nature, he will unfailingly resort to the same method even when the accurate fulfilment of the suggestion could be ensured by simply counting the days as they passed. The following examples will illustrate these points.

I may state, with regard to all the experiments recorded in this paper, that I always took short notes at the time, in the subject's presence—in shorthand when anything more than figures was necessary—and these were invariably written out in full two or three hours afterwards. In nearly all the experiments the time-intervals suggested were chosen at random. In the earlier ones I sometimes worked out the calculations before making the suggestions, sometimes immediately after doing so, and sometimes later in the day when writing out my notes. In most of the later experiments I made no calculation until after the subject had fulfilled the suggestion, or had told me her solution of the problems. When the suggestions were given in Nos. 21, 22, and 23 of the series tabulated on page 19, Miss A., a friend of the subject, was present. In no other instance in that series did any third person know anything about the suggestions. Only very exceptionally in the other experiments was there anyone present when the suggestions were given except the subject and myself. All the subjects were good somnambules before the experiments were begun, and there was not at any time the slightest doubt as to the completeness of post-hypnotic amnesia.

In conducting experiments with hypnotized subjects, certain precautions are necessary. Some of these are very obvious to anyone having knowledge of the peculiarities of hypnotic and post-hypnotic states. Others are less obvious, and considerable ingenuity is sometimes necessary to avoid falling into error.

The more obvious precautions are those which must be taken to ensure that the subject does not obtain through ordinary sensory channels any information which the experimenter wishes him not to have. The subject must always be looked upon as being wide awake, or rather as being in a state in which sensory impressions of all kinds are more readily perceived than they are in the waking state. The fact that his eyes are closed, or apparently closed, must never be taken as a proof that he cannot see what is going on. A possible hyperæsthesia of all the senses must be allowed for; and it is much better to overdo the precautions taken than to be careless on any point, however unimportant it may at first sight appear to be.

From the beginning of the experiments which I am about to record I made it a rule never to write down in the subject's presence anything which she could possibly see by any normal means. In making calculations in the presence of the subject, I either went behind her or interposed some opaque body between her face and the paper on which I was writing. I also used a very soft sharp-pointed pencil, and made the figures very small so as to avoid giving any information through the sense of hearing. Such precautions may probably be quite unnecessary; but some of the recorded evidence relating to sensory hyperæsthesia during hypnosis is so extraordinary that we have no right to imperil the exactness of our results by failing to allow for every possible source of error.

Throughout the series of observations which I am about to record I lay great stress on the importance of the information given by the subject, during hypnosis, in response to questions regarding her mental states and processes at various times. The framing of the questions put to the subject is to my mind the most important and the most difficult feature in connexion with experiments of this description. The difficulty of putting a question in such a way that no inkling is given of the answer you desire or expect is sometimes almost insuperable; and the way in which the response of the subject may be modified by the merest change of intonation on the part of the operator can be appreciated only by those who have had some experience in this form of investigation. How to obtain the truth from a person whose every pulse of thought is to some extent at the mercy of the faintest suggestion of the operator is a problem which demands the greatest care and ingenuity. When every precaution is taken, and when there is no doubt as to the honesty of the hypnotized subject, the danger of falsification of the subject's memory by unconscious suggestions is the chief source of error which the investigator has to guard against when trying to obtain a trustworthy account of the mental processes which go on at the hypnotic level of consciousness. This is the main reason why it is advisable, whenever possible, to have a verbatim report of all questions which are put to the hypnotised subject; for unless the questions are carefully prepared beforehand it will often be found that information which may have had some influence in moulding the answer obtained has been conveyed by the wording of the question. In my own experiments I preferred preparing the questions beforehand. When this was not possible I took them down in shorthand at the time.

One of my subjects, Mrs. C., is a fairly well educated woman, but she greatly dislikes mental arithmetic, and indeed, figures generally. In the waking state, the simplest of sums in mental addition or multiplication distress her exceedingly. She is a good somnambule, can be hypnotized and awakened instantaneously, and post-hypnotic amnesia is complete. Yet when given any sum to be worked out subconsciously in post-hypnosis, there always seems to be some subliminal invasion of the waking consciousness which leads to supraliminal knowledge that she is "doing figures in her head," although she never knows what they mean.

On March 5th, 1907, I asked her, in hypnosis, to make a cross on a piece of paper, on "the 39th day from this." The matter was not referred to again until March 21st. On being asked in the waking state if she had been doing any sums, she said that she thought she had, but that they seemed to be "very little ones." She had had the feeling that she had been "adding on one every day," but she did not know how far she had got, or to what end she was counting. I said to her "Sleep! How many days are gone?" She answered immediately, "16." She did not know how many days were to come, nor when the act fell due. She remembered the suggestion, but not the date on which it had been given. Her sole knowledge of the matter seemed to be that she had to make a cross on the 39th day, and that 16 days had elapsed since the suggestion was given.

Another subject, Mrs. T., was told, during hypnosis, in the presence of her husband, on Sunday, January 13th, 1907, to make a cross on a piece of paper on "the 43rd day from this." (Due February 25.) I did not see her again until March 1st. I then found that the cross had been made some time before it was due. She had not dated the paper, and she could not remember when the cross was made. In hypnosis she said it was made on February 17th. She knew quite well when the cross ought to have been made, but she was flurried by her husband asking her on the 17th if she had not something to do for me, and whether she had forgotten it or not. She was then afraid she had made a mistake, and made the cross that day, fearing she might be too late. On being asked if she had made any calculation, or if she had been counting the days, she said she had made a calculation, and had counted the Sundays. She knew that the cross had to be made on the day after the sixth Sunday.

This subject is a highly intelligent and well-educated woman, and it is interesting to note how she simplified the calculation for determining the day ($7 \times 6 + 1 = 43$), and also how she simplified the process of watching and counting the days. This was the first time she had been experimented on; and although it is quite exceptional for questions during the waking state to disturb operations of the subconscious mind which have been set going by suggestion during hypnosis, it is probable that if her husband had not mentioned the matter to her at all she might have fulfilled the hypnotic command at the proper time.

On March 1st, 1907, I asked her, in hypnosis, to make a cross on "the 145th day from this." Immediately after giving the suggestion I asked her when it fell due. She replied, after about 30 seconds, that it fell due on July 24th. (Right.) Questioned as to how she knew, she said she had just added up the days of the months, allowing 30 days for March, and 24 days in July (30 + 30 + 31 + 30 + 24 = 145). She said she would always make a calculation when such a suggestion was made to her. She would not think of trying to count every day as it came.

Similar experiments made on another somnambule show still more clearly the use of calculations in connexion with such suggestions. Miss F. D. was a good somnambule, and could be hypnotized or awakened instantaneously by uttering the commands, "Sleep!" and "Wake up." She had previously been subjected to a long series of experiments involving subconscious calculations, which are recorded in a later part of this paper. On December 6th, 1906, I told her during hypnosis to make a cross on a piece of paper on "the 39th day from this," and to put underneath it the date of doing so (due January 14th, 1907). On December 8th I asked her in the waking state if she knew what I had told her to do. She of course knew nothing. I said to her suddenly, "Sleep! When is it due?" She replied immediately, "January 14th." On being questioned as to how she knew, she said that it came into her head on the night of December 6th, during natural sleep. She had no recollection of having made any calculation.

On January 3rd I hypnotized her and asked, "How many days are gone?" She replied immediately, "28" (right). "How many to come?" "12" (wrong). "Wake up." After she awoke I found that 12 was wrong, so I hypnotized her and asked her if she thought her answers were right. She said at once that 12 was wrong, and that there were only 11 days to come. She did not know how she had made the mistake. She could not say how she knew the right answers, but she believed that she noted the days in her sleep at night. The cross was duly made on January 14th.

On January 3rd, 1907, I made a similar suggestion to be fulfilled on "the 145th day from this." On January 16th I asked her in hypnosis if she remembered what I told her on January 3rd. She said she did. "How many days are gone?" "13." "How many to come?" "132." "When does it fall due?" "May 28th." All the answers are correct, and were given without any hesitation. On being asked the same questions on January 29th, she said that 26 days had passed, and 119 still to come (right). On February 16th, when doing some experiments involving automatic writing, I asked her, during hypnosis, to write down anything she liked after waking. When she awoke she wrote down 101 – 44. The subject in the waking state did not know what this meant, and as no reference to the suggestion of January 3rd had been made since January 29th, I had quite forgotten about it, and did not associate the figures with that experiment. On being hypnotized she told me that they were meant to indicate that there were 101 days to come and 44 gone (right). On March 2nd she wrote automatically under similar circumstances, 58 – 87 (58 gone, 87 to come—right).

In this case there is clear evidence that a calculation had been made by which the terminal day was arrived at; but it is curious to note that there was apparently also a continuous watching and counting of the days as they passed, which would seem to be quite unnecessary. This, I think, was due to the subject's long training in experiments of this description, and to her knowledge that I was in the habit of questioning her about the details of her methods. It is of course possible that there was really no counting of the days. If she knew on each occasion what the date was, she might have calculated, every time, the number of days gone and to come. But the rapidity with which the replies were given leads me to think that the knowledge must have been in her possession before the questions were asked. It may, however, be suggested that she was subliminally on the look-out for my question, and that she made the calculation subliminally before being hypnotized. But if there was the continuous subliminal expectancy which such a suggestion implies, it would surely have been much easier for her to count the days as they passed than to make a subliminal calculation every time I called to see her.

When the terminal day is arrived at beforehand by calculation, and no continuous counting of the days as they pass takes place, the act is fulfilled on the proper day just as it is when a date is mentioned in giving the suggestion. In such cases Gurney's method of naming an interval of time instead of a fixed date does not ensure a continuous time-watching or demonstrate any true appreciation of the passage of time by somnambules.

When Delboeuf[1] recognized the importance of not mentioning any fixed date for the fulfilment of the post-hypnotic act, he thought that this difficulty could be overcome by giving the suggestion in minutes instead of in hours or in days. He devised this method, he says, partly to do away with the fixing of the terminal time in giving the suggestions, and partly in order to make it possible to carry out a number of observations in a relatively short time. Here is an example of Delboeuf's experiments. At 6.55 a.m. he suggested to his subject M. that at the expiration of 1,500 minutes she was to ask Madame Delboeuf if she required anything. This suggestion was carried out with absolute accuracy. Delboeuf made twelve experiments of this kind, the time-intervals suggested varying from 350 to 3,300 minutes. Two of these were fulfilled at the moment they fell due. In three the impulse to fulfil the suggested act arose at the right time. In none of the others was the estimation of the time accurate.

---

[1] Delboeuf, " De l'appréciation du Temps par les Somnambules," *Proceedings S.P.R.*, Vol. VIII., p. 414.

Delboeuf's subjects were his two maid-servants, J. and M., who were ignorant country girls. Only with difficulty could they tell the time by the clock, and in the waking state they were quite incapable of reducing to hours such a number of minutes as 1,150. M. was a somewhat better arithmetician than J., and it is important to note that in the experiments she was more accurate in her time-estimation than J.

Inspired by Delboeuf's results, Dr. Milne Bramwell took up the subject of time-appreciation by somnambules, and he has published a remarkable series of observations which are deserving of the closest study.[1] Recognizing that some of Delboeuf's failures were due to the subject's resistance to distasteful suggestions, Dr. Bramwell confined the suggested act in all his experiments to the making of a cross on a piece of paper at the end of a certain number of minutes. His subject, Miss D., was " an intelligent girl who had received an ordinary Board School education, and her arithmetical powers were in keeping with this; she could do ordinary sums in multiplication and subtraction with the aid of a pencil and paper, but failed, unless they were extremely simple, to solve them mentally."[2] The experiments were conducted as follows: During hypnosis Miss D. was told that at the expiration of a certain number of minutes she was to make a cross and write down the hour she believed it to be without consulting the clock, an interval of waking life always intervening between the suggestion and its fulfilment. At first the arithmetical problems involved in the experiments were relatively simple, but later they were exceedingly complicated, and further, as many as five or six different suggestions were given rapidly, one after the other, in the same hypnosis. These suggestions were fulfilled with remarkable accuracy—some in ordinary waking life, some in subsequent hypnosis, and some during natural sleep. The following examples will give some idea of the nature of these experiments.

---

[1] Bramwell, *Hypnotism* (London, 1903), p. 119.

[2] *Ibid.*, p. 120.

On Tuesday, December 24th, 1895, at 3.10 p.m., Miss D. was told, during hypnosis, that she was to make a cross on a piece of paper in 7,200 minutes (Exp. No. 7).[1] This fell due to be fulfilled on Sunday, December 29th. " When it was fulfilled Miss D. was teaching a Sunday School class, when she suddenly felt an impulse to make a cross and mark the time. It was only after doing so that she looked at the clock, which was behind her. Her estimation of the time was correct."

On January 8th, at 4.30 p.m., a similar suggestion was given, to be fulfilled in 10,070 minutes (Exp. No. 12).[2] This suggestion fell due on January 15th, at 4.20 p.m. When it was fulfilled Miss D. had been hypnotized in Dr. Bramwell's room for an hour, and had had no opportunity of consulting the clock. Exactly at 4.20, without waking or opening her eyes, she said she had to make a cross and put down the time.

On Wednesday, February 5th, five suggestions were given rapidly, one after the other. Among these were No. 22—in 840 minutes (due 6 a.m. February 6th), and No. 23—in 900 minutes (due 7 a.m. February 6th).[3] " When Miss D.'s mother went to her bedroom on the morning of the 6th, she found her asleep and two pieces of paper on a table by her bedside. On each was a rough cross ; on one the figure 6, on the other 7, both very badly written. Miss D. said she had not awakened during the night."

[1] Bramwell, *Hypnotism*, p. 122.

[2] p. 123.

[3] p. 125.

In summarizing his experiments, Dr. Bramwell says:[1] "Fifty-five experiments are cited; of these one, apparently, was either not carried out by Miss D., or unrecorded by me, while in another (No. 9), she mistook the original suggestion, but fulfilled it correctly in accordance with what she thought it had been. Forty-five were completely successful, i.e. not only did Miss D. write down the correct terminal time, but this was done, also, at the moment the experiment fell due. Eight . . . were partially successful. In these the terminal time was correctly recorded in every instance, but there were minute differences, never exceeding five minutes, between the subject's correct estimate of when the suggestion fell due and the moment at which she carried it out. The proportion which these errors bear to their respective intervals varies between 1 to 2,028 and 1 to 21,420."

I have made a series of observations which corroborate in many ways the results obtained by Dr. Bramwell; yet there are certain points of difference which are not uninteresting. My subject, F. D., was a delicate girl whom I had relieved of some functional troubles by hypnotic suggestion. She was thirty years of age, and lived at home with her parents, helping in the work of the house. She had received an elementary education at a National School, but, as will be seen from her methods of calculation in the waking state, she was evidently not as good an arithmetician as Dr. Bramwell's subject. She was a good somnambule, and could be hypnotized or awakened instantaneously simply by uttering the commands, "Sleep!" or "Wake up!" All the experiments were conducted on the lines laid down by Dr. Bramwell; but occasionally certain modifications were introduced which will be detailed in due course. Where nothing to the contrary is mentioned, the subject was requested, during hypnosis, to make a cross on a piece of paper at the end of a given number of minutes, to put down the time she thought it was when doing so without consulting a clock or watch, to put whether a.m. or p.m., and to add the day of the month. Where no statement to the contrary is made, the subject was told what the "starting time" was. From the beginning I suggested that she should remember having made the crosses, and that she should keep them and give them to me. My first experiment was made with the intention of finding out what her powers of subconscious calculation were at this time. On March 30th, 1906, at 11.15 a.m. I asked her to make a cross in 86,400 seconds. Next day she gave me a paper marked "11.30 p.m., March 30th." This was wrong; it should have been 11.15 a.m., March 31st. I then began the following series of experiments.

---

[1] Bramwell, *Hypnotism*, p. 132.

No. 1. March 31, 1906, 11.30 a.m.—in 700 minutes (due March 31, 11.10 p.m.).

When I saw her next day she gave me a paper marked with a cross and 11.10 p.m., March 31st. On being asked when this was written she said, "last night after I had gone to bed. I had been asleep and woke up to do it. I remember feeling very tired and went to sleep at once after writing it, and slept all night."

No. 2. April 3, 1906, 11 a.m.—in 4,000 minutes (due April 6, 5.40 a.m.).

On April 5th I asked her in hypnosis if she remembered my suggestion of April 3rd. She remembered it and repeated it correctly. On being asked when it fell due, she replied at once, "5.40 to-morrow morning." "Have you calculated it?" "Not on paper." "How then—in your mind?" "Yes, I suppose so." "When did you calculate it?" "I think it was in my sleep the other night." On being awakened she knew nothing about having to make a cross, and did not remember having dreamt about figures.

On April 6th she gave me a paper marked "5.40 a.m., April 6th." She did not know what the exact time was when she made the cross, as she did not look at her watch for some time afterwards. When she did look it was six o'clock. She woke up to make the cross and did not go to sleep again.

No. 3. April 9, 1906, 4 p.m.—in 2,885 minutes (due April 11, 4.5 p.m.).

As soon as the suggestion was given she was told that when she woke up she would be asked to read aloud from a book, and that while reading she would write out the suggestion, and, if possible, the time when it fell due to be fulfilled. She was then awakened and given a book to read aloud. A pencil and paper were placed on the table close to her right hand. After reading a few lines she took up the pencil and began to write while continuing her reading. She made a cross, wrote 2,885, and then stopped both reading and writing, put the pencil down, saying, "I can't do two things at once." I told her to go on reading and not to mind anything else. She did so, and while reading she again took up the pencil and wrote April 9. I stopped the reading and said, "You have not written down when it falls due." She immediately wrote "5 to 4." I re-hypnotized her and told her I thought 5 to 4 was not quite right. She said at once, "Yes, 5 to 4 is wrong; it is 5 past 4." On being asked if she had made any calculation, she said, "No, how could I? I have not had time." "How then do you know?" "I don't know how I know." "But you are sure 5 past 4 is right?" "Yes."

On April 12th she gave me a paper marked "5 past 4 p.m., Apr. 11." She knew nothing about this in the waking state except that she had written it. In hypnosis she knew that she had written it in response to my suggestion of April 9th.

An attempt was now made to find out if more difficult

TABLE OF EXPERIMENTS, Nos. 1–30, WITH F. D.

No. of Experiment.	Suggestion made on	Suggestion made at	Interval suggested.	Suggestion due.	Suggestion fulfilled.	Witness.
	1906.					
1	Mar. 31	11.30 a.m.	700 min.	Mar. 31, 11.10 p.m.	Mar. 31, 11.10 p.m.	
2	April 3	11 a.m.	4,000 min.	April 6, 5.40 a.m.	April 6, 5.40 a.m.	
3	April 9	4 p.m.	2,885 min.	April 11, 4.5 p.m.	April 11, 4.5 p.m.	
4	April 12	12 noon.	3,090 min.	April 14, 3.30 p.m.	(Calculation only wanted.)	
5	April 13	—	7,410 min.	(Calculation only.)		
6	April 15	12 noon.	17,505 min.	April 27, 3.45 p.m.	April 27, 3.40 p.m.	T. W. M.
7	April 21	4.15 p.m.	4,305 min.	April 24, 4 p.m.	April 24, 4 p.m.	T. W. M.
8	April 25	4 p.m.	2,880 min.	April 27, 4 p.m.	April 27, 4 p.m.	T. W. M.
9	April 26	11 a.m.	1,710 min.	April 27, 3.30 p.m.	April 27, 3.30 p.m.	T. W. M.
10	April 29	11.20 a.m.	40,360 min.	May 27, 12 noon.	May 27, 12 noon.	
11	”	”	40,630 min.	May 27, 4.30 p.m.	May 27, 3.10 p.m.	
12	May 1	12 noon.	10,080 min.	May 8, 12 noon.	May 8, 12 noon.	
13	May 3	4 p.m.	14,350 min.	May 13, 3.10 p.m.	May 13, 3.10 p.m.	
14	”	4.30 p.m.	9,275 min.	May 10, 3.5 a.m.	May 10, 3.5 a.m.	
15	May 6	12 noon.	3,090 min.	May 8, 3.30 p.m.	May 8, 3.30 p.m.	T. W. M.
16	May 8	4 p.m.	42,312 min.	June 7, 1.12 a.m.	June 7, 1.12 a.m.	
17	”	4 p.m.	184,620 min.	Sept. 13, 9 p.m.	Sept. 13, 9 p.m.	
18	June 5	12 noon.	87,145 min.	August 5, 12.25 a.m.	August 5, 12.25 a.m.	
19	”	12 noon.	214,895 min.	Nov. 1, 5.35 p.m.	Nov. 1, 5.35 p.m.	Miss A.
20	June 14	4.15 p.m.	26,385 min.	July 2, 12 midnight.	(Calculation only.)	
21	June 17	12.15 p.m.	3,762 min.	June 20, 2.57 a.m.	June 20, 2.57 a.m.	
22	June 23	1.10 p.m.	135 min.	June 23, 3.25 p.m.	June 23, 3.22 p.m.	Miss A.
23	June 24	12.25 p.m.	7,200 min.	June 29, 12.25 p.m.	June 29, 12.25 p.m.	Miss A.
24	July 1	3.59 p.m.	2,935 min.	July 3, 4.54 p.m.	July 3, 4.55 p.m.	Miss A.
25	”	”	8,935 min.	July 7, 8.54 p.m.	July 7, 8.55 p.m.	Miss A.
26	July 8	12.2 p.m.	1,705 min.	July 9, 4.27 p.m.	July 9, 4.30 p.m.	F. D.
27	”	12.10 p.m.	3,145 min.	July 10, 4.35 p.m.	July 10, 4.35 p.m.	
28	July 16	12.30 p.m.	4,580 min.	July 19, 4.50 p.m.	July 19, 4.40 p.m.	Miss A.
29	”	1 p.m.	7,460 min.	July 21, 5.20 p.m.	July 21, 5.20 p.m.	Miss A.
30	July 22	12.20 p.m.	274,800 seconds	July 25, 4.40 p.m.	July 25, 4.40 p.m.	Miss A.

In No. 15 the suggestion was given to the subject in the waking state.

In Nos. 22, 23, 24, 25, 26, 28, the subject was not told what the "starting time" was.

problems required a longer time for the subconscious calculation to be made correctly. The plan adopted was to explain in hypnosis that a problem requiring an answer would be put and that she was to write down the answer as soon as she awoke. The problem was then given and the subject immediately awakened.

No. 4. On April 12th, 1906, I said to the subject in hypnosis:

"If, counting from to-day, Thursday, at 12 o'clock, you make a cross in 3,090 minutes, when will it fall due? Wake up!" She awoke and almost immediately went over to the table and wrote: "11.20 p.m., April 15th." This is wrong. It should have been 3.30 p.m., April 14th. I hypnotized her and asked what my question was. She repeated it, giving 3,900 minutes instead of 3,090. Still her answer would have been wrong. I told her to try again with 3,090 minutes and to tell me the answer immediately on waking up. I awoke her and she said at once: "1.30, April 14th." Another trial was made and she was told to take time if necessary. On awaking she said after a few minutes: "6.30, April 14th." This being wrong, and as she seemed to be getting confused, I re-hypnotized her and told her to tell me the answer the next time I saw her, if she could not do so before I left. I then awoke her and talked to her for about five minutes before going away. Next day as soon as I saw her she told me that just as I was leaving on the previous day she felt inclined to say to me: "3.30, April 14th"; but she did not know what it meant and thought it sounded silly, so did not say anything.

No. 5. On April 13th, 1906, I asked her in hypnosis to tell me as soon as she could after waking, how many days, hours, etc., are in 7,410 minutes. Awakened immediately, she replied after a few minutes: "5 days, 160 hours." Told to try again, she said: "5 days, 140 hours." In hypnosis she told me these answers were wrong, but she could not tell me the correct one. As I could not wait longer I told her to write down the answer as soon as she could, noting on the paper the time at which she did so. I left her at 12.30 p.m.

When I saw her on April 15th she gave me a paper marked: "5 days, 123½ hours, 12.40 p.m., April 13th." She said she had got up to write this in the middle of her dinner soon after I left on April 13th. She had sat down to dinner immediately after I had gone away, and was talking and laughing with her people all the time until she suddenly felt that she must get up and write this. When she had written it she did not know what it meant.

I could not understand the answer at first, as 5 days *plus* 123½ hours is so obviously wrong. But 123½ hours = 7,410 minutes. In hypnosis she told me that she understood me to want the number of days *and* the number of hours. Her previous attempts had been in this direction.

No. 6. April 15, 1906, 12 noon—in 17,505 minutes (due April 27, 3.45 p.m.).

Next day I asked her in hypnosis if she remembered the suggestion given on April 15th. She repeated it correctly. Asked when it fell due, she replied at once: "3.45 p.m., April 27th." In response to questioning, she said she thought she had arrived at this conclusion in the night. She was not conscious of having made any calculation. All she knew was that she remembered "thinking about the question and the answer" in the night. In the waking state she knew nothing at all about the matter.

On April 24th, after the fulfilment of the next experiment, she was asked in hypnosis if she had any other crosses to make during the coming week. She said she did not think so—she could not remember any. The fact that she had told me that the suggestion of April 15th fell due on April 27th seemed to have faded for the time being from her memory. Nevertheless, on April 27th the suggestion was fulfilled in my presence. At 3.40 p.m., while awake, and talking to me, she suddenly became restless, and I asked her what was the matter. She said she felt she had to write down something. I said, "Come along and do it, then." She immediately came to the table, made a cross on a piece of paper and wrote: "3.45 p.m., April 27th." It was then just past 3.40. The suggestion was fulfilled, therefore, about five minutes too soon. I think, however, that this error was probably due to my telling her to "come and do it" as soon as she explained to me the reason for her restlessness. For I have frequently observed that a cross made in my presence is preceded for some minutes by a certain amount of restlessness, and that if she is not interfered with in any way the suggested act will be performed usually at the exact time at which it falls due.

No. 7. April 21, 1906, 4.15 p.m.—in 4,305 minutes (due April 24, 4 p.m.).

This suggestion was fulfilled in my presence on April 24th at 4 p.m. exactly. At 3.55, while in hypnosis, she became rather restless and sighed frequently. On being asked why she sighed, she said she did not know, but that she seemed to have something on her mind. "Do you know what it is?" I inquired. "No! I think I have to do something." Being desirous to see if a similar restlessness would appear in the waking state, I awoke her. She talked to me without any seeming preoccupation, and I held her attention constantly by questioning her on matters of interest to her. While continuing the conversation she began searching in her pocket and brought out a pencil. I paid no attention to what she was doing and kept her engaged in conversation. Suddenly she said: "Excuse me a minute, I must go and get a piece of paper." "What do you want a piece of paper for?"

"I've got to write something." "Do you know what it is?" "No." She was by this time at the door of the room. I told her that I could give her a piece of paper, so she came back to the table and prepared to write. "Do you know what you have to write now?" "Yes." She immediately made a cross and wrote: "4 p.m., April 24th." It was then exactly 4 o'clock. In the waking state she knew nothing about what she had written except that she had written it. In hypnosis she knew what she had written and what it meant. She did not remember having thought of the matter at all, since I made the suggestion, unless she did so in her sleep on the first night. She was not aware of having made any calculation, and she did not know how she knew when to make the cross.

No. 8. Wednesday, April 25, 1906, 4 p.m.—in 2,880 minutes (due 4 p.m., April 27).

After giving the suggestion, I asked her when it fell due. She replied immediately, "4 o'clock on Thursday—no, Friday—4 o'clock on Friday." (April 27.) She said she did not make any calculation—"it just came into my head." This suggestion was fulfilled, in hypnosis, on April 27th, at 4 p.m., in my presence.

No. 9. April 26, 11 a.m.—in 1,710 minutes (due April 27, 3.30 p.m.).

Immediately after giving the suggestion, and before hypnosis terminated, I asked her when it fell due. She could not give the answer at once, but after a few minutes, during which I talked to her about her health, I again asked when it fell due, and she replied, "3.30 to-morrow." (Right.) She said she had not been thinking about it or trying to calculate while I was talking to her; she was attending to what I was saying. The suggestion was fulfilled in hypnosis on April 27th, at 3.30 p.m., in my presence.

No. 10. April 29, 11.20 a.m.—in 40,360 minutes (due 12 noon, May 27).

On being asked when this fell due, she laughed and said she did not know. After a few minutes she said it was about 30 days. (It is 28 days, 40 minutes.) She could not give me any more definite answer.

On May 1st I told her in hypnosis that in the future I should refer to her in the waking state as Miss D——g, and in the hypnotic state as Florence. This was done in order to make her understand more easily my directions in regard to some experiments in automatic writing. Thus I said, " When you wake up I shall give Miss D——g a book to read and she will confine her attention to what she is reading, while you, Florence, will write down answers to questions which I shall put to you." I awoke her and gave her a book to read aloud. I put a pencil in her right hand and told her not to pay any attention to what her right hand might do, but to go on reading. While she was reading I said in a low voice, close to her ear, " What is your name ? " Very slowly her hand wrote " Florence." " What did I tell you on Sunday—something you had to do ? " She wrote " 40630 " and something indecipherable. " When does it fall due ? " She wrote " May 27." " What time ? " She wrote " 4.30." " What day is that ? " " Sunday." All this was done with considerable effort ; when the hand wrote the reading was hesitating. The writing was done very slowly and badly.

The figures written down being wrong, and the terminal time also being wrong, I hypnotized her and asked her for an explanation. She said she was not sure whether I had said 40,630 or 40,360. She had thought about it in her sleep on Sunday night and could not decide which it was. If it was 40,360 it would fall due, she said, at 12 o'clock on the same day. Her answers are correct. I told her that my suggestion was 40,360 minutes, and that she must make a cross at the end of that time. I told her also to make a cross at the end of 40,630 minutes, so I number this suggestion as a separate experiment.

No. 11. April 29, 1906, 11.20 a.m.—in 40,630 minutes (due 4.30 p.m., May 27).

On May 27th she gave me two papers, one marked "12 o'clock noon, May 27," and the other "3.10 p.m., May 27." I did not notice that the time given on the second paper was wrong. On June 5th I questioned her during hypnosis on the matter, and she said she thought 3.10 was correct. She did not remember having told me the correct answer on May 1st. She said she thought she must have got confused, as she had made so many crosses. She now saw that 3.10 was wrong, and that the difference between 40,360 minutes and 40,630 minutes is 4½ hours; so that if 12 noon is right for one, the other must be 4.30 p.m.

No. 12. May 1, 1906, 12 noon—in 10,080 minutes (due May 8, 12 noon).

I chose this number at random, and did not know when the cross fell due. Immediately after giving the suggestion I asked her when it fell due. In about 30 seconds she replied, "On May 8th." "At what time?" "I don't know—about 12 o'clock, I think." "You do not feel very sure about it?" "No." As I did not know when it fell due I did not question her any further. Her answer is correct. The cross was made at 12 noon on May 8th. As soon as she made it she went into the kitchen and asked her father what the time was. He said it was just one minute and a half past twelve.

No. 13. May 3, 1906, 4 p.m.—in 14,350 minutes (due May 13, 3.10 p.m.).

No. 14. May 3, 1906, 4.30 p.m.—in 9,275 minutes (due May 10, 3.5 a.m.).

On May 10th she gave me a paper marked " 3.5 a.m., May 10th." She said she was not quite awake when she made the cross. After making it, she lay down for a few minutes and then woke up more completely and looked at her watch. It was then 3.12 a.m.

On May 13th she gave me a paper marked " 3.10 p.m., May 13." This was the fulfilment of No. 13.

I had by some error put 3.30 p.m. in my notebook as the terminal time for this experiment. Twice in the preceding week I had asked the subject in hypnosis when this cross fell due, and each time she answered, " 3.10 p.m., May 13th." I thought this wrong, but said nothing. Now that she had made the cross at 3.10 I tried to find out how she had made the calculation, and how the mistake, as I thought it, had arisen. In hypnosis she maintained that she knew nothing of how she had arrived at the terminal time. I then asked her to open her eyes without waking up and to do the calculation on paper. " If," I said, " you make a cross in 14,350 minutes after 4 p.m. on May 15th, when will it fall due ? " She took a pencil and wrote down 1440. This she multiplied by 10, and from the sum so obtained she subtracted 14,350. She then said it would fall due on May 25th at 50 minutes before 4 p.m., or at 3.10 p.m. I questioned her as to her method of calculation. " What," I said, " does 1440 stand for ? " " That is the number of minutes in a day." " How do you know ? " " Why, anyone would know that." " Why did you multiply it by 10 ? " " That is the number of days—14,400 is the number of minutes in 10 days—that would be 4 p.m. on the 25th—14,350 is 50 minutes less, so that makes it 3.10."

She was awakened ; and it must be remembered that she was always totally amnesic in the waking state for all that had happened during hypnosis. I asked her if she could calculate when 14,350 minutes after 4 p.m. on May 15th would fall due. She said she did not think she could. I told her to take a pencil and work it out on paper. She thought for a minute and then put down 720 and multiplied it by 2. The result she multiplied by 5, and the sum so obtained she multiplied by 2, thus getting 14,400. Then she subtracted 14,350 from 14,400 and said the time would be 3.10 p.m. in 7 days after the 15th, or on May 22nd.

I told her that the answer was wrong; but she said it must be right, because 5 and 2 make 7. Not until it was pointed out to her did she see that multiplying 7,200 minutes by 2 gives the number of minutes in ten days, not seven.

No. 15. May 6, 1906, 12 noon—in 3,090 minutes (due May 8, 3.30 p.m.).

This suggestion was given in the waking state. I had been making some experiments as to her power of appreciating the passage of short periods of time when the suggestion was given in the waking state, and I had found that her time estimations were then as accurate as when the suggestions were given during hypnosis. So I tried what the result would be if a suggestion involving calculation were given in the waking state. Endeavouring in every way to make sure that she kept awake, I made the suggestion given above. I told her all she had to do was to get the figures into her head, and that she was not to make any conscious calculation either on paper or mentally. This she quite understood and agreed to. She had no idea when the cross fell due. She was not re-hypnotized.

This suggestion was fulfilled correctly during hypnosis in my presence. On being asked in the waking state what she knew about the suggestion given on May 6th, she said that when at dinner, about half an hour after I left her, while she and her people were talking and laughing, "3.30 p.m., May 8th," suddenly came into her head. She knew it was the answer to the problem I had given her. She had not troubled or made any calculation in regard to it, and did not know whether it was right or not. She had recollected the matter once or twice since, but had not troubled about it.

The whole experiment seems to have differed from those in which the suggestions were given in hypnosis only in the fact that the solution of the problem as to the terminal time came into her mind in the waking state, and in that she had knowledge of the experiment in the waking state. She could recollect that she had a cross to make at a certain time. She did not, however, worry about doing it at the right time although she meant to do it. The prompting to do it at the time, it was due seemed to differ little, if at all, from what she felt in the ordinary experiments.

No. 16. May 8, 1906, 4 p.m.—in 42,312 minutes (due June 7, 1.12 a.m.).

No. 17. May 8, 1906, 4 p.m.—in 184,620 minutes (due September 13, 9 p.m.).

On May 10th I asked her, during hypnosis, if she remembered the suggestions given on May 8th. She repeated them correctly. As to the solutions, she said she only knew one, which she gave correctly—1.12 a.m., June 7th. The other, she said, was a long time—September, about the 9th or 10th, probably about 9 a.m., but she was not sure about this. (9 p.m., Sept. 13, is the right time.) She was not questioned again in regard to this suggestion until June 4th, when she said it fell due on September 14th at 1.40 p.m. On being asked how many days, hours, and minutes are in 184,620 minutes, she said 129 days, 9 hours, 12 minutes. (Wrong—there are 128 days, 5 hours.)

I then told her to work it out on paper without waking up. She did so as follows:

1440	
129	
12960	1440
2880	1140
1440	300
185760	300
184620	
1140	

Having done this, she said there are 128 days 5 hours (right). The method of calculation seems to be as follows: 1,440 × 129 = the number of minutes in 129 days. Therefore the suggested number of minutes is less than 129 days. How much less? She subtracts 184,620 from 185,760. It is 1,140 minutes less. She then subtracts 1,140 from 1,440. The suggested number of minutes therefore equals 128 days and 300 minutes; and 300 minutes are equal to 5 hours. The last 300 put down in the sum was, she said, the result of the mental calculation, 60 × 5.

She could give no reason why she chose 129 as the multiplier; she said it just seemed to be the right number.

In connexion with this calculation I may mention that on a subsequent day I asked her in hypnosis how she would set about calculating mentally the number of days, hours, and minutes in 17,700 minutes. She said at once that she would multiply 1,440 by 12. After about a minute she said that would give 17,280. Then she would subtract 280 from 700, and so on. When asked why she multiplied by 12 rather than by 9, 10, or 11, she said she did not know; she seemed to feel that it ought to be 12. She thought that when she worked out similar calculations in her natural sleep she did them in the same way, but that she went into such a very deep sleep when doing them that she could not remember anything about the actual calculations afterwards (i.e. in her ordinary sleep state, or in hypnosis. She was not referring to amnesia during waking life; for she recognized that this always occurred in regard to the mental operations of all varieties of her sleep-state).

Both suggestions given on May 8th were fulfilled in due course at the proper times.

No. 18. June 5, 1906, 12 noon—in 87,145 minutes (due August 5, 12.25 a.m.).

No. 19. June 5, 1906, 12 noon—in 214,895 minutes (due November 1, 5.35 p.m.).

On June 8th, during hypnosis, she answered correctly both problems. No. 18 was fulfilled in natural sleep and was not witnessed. No. 19 was witnessed, and the time verified by a friend who was staying with the subject. This friend, Miss A., witnessed and verified the accuracy of most of the subsequent experiments.

No. 20. June 14, 1906, 4.15 p.m.—in 26,385 minutes (due July 2, 12 midnight).

Immediately after giving the suggestion I asked her when it fell due, but she said she did not know. I then told her to write down the answer as soon as she did know it, and to put down also the time and date of doing so, and to have it witnessed by Miss A., in whose company she would be for the rest of the day. She was then awakened and I left at 4.30 p.m.

On June 17th she gave me a paper marked with a cross and "12 o'clock midnight, July 2nd." Below this was written "5.38 p.m., June 14th." It was signed by Miss A., who told me that after I left on June 14th, F. D. was with her all the time until 5.38 when the answer to the problem was written. They had been talking all the time, and at the moment F. D. felt impelled to write, she was sewing. She had not been asleep in the interval.

I had chosen the figures at random, and when the solution was shown to me none of the three of us knew whether it was correct or not until I worked it out on paper. Miss A. was not present when the suggestion was given.

The subject understood that this experiment was made for the sake of testing how long it took her to arrive at the solution of the arithmetical problem, and the cross was not made on July 2nd.

No. 21. June 17, 1906, 12.15 p.m.—in 3,762 minutes (due June 20, 2.57 a.m.).

I told her to write the answer to this problem as soon as she could after waking. I told Miss A. to watch F. D. all the time and to note the time at which the answer was recorded.

Immediately after the suggestion was given, the subject was awakened and I went away. The solution was recorded at 12.40. Miss A. told me that she kept F. D. in constant conversation from the time I left until the answer was written down.

The suggestion was fulfilled in the early morning of June 20th.

A few experiments were now made in which the subject was not told what the "starting time" was.

No. 22. June 23, 1906 (1.10 p.m.), "from now" in 135 minutes (due 3.25 p.m.).

Before I gave the suggestion the subject had been in hypnosis for 20 minutes and had no ordinary means of knowing the time. The suggestion was that in 135 minutes she should go into the garden and pick some flowers which she would give to Miss A. I asked Miss A. not to let F. D. out of her sight for an instant, to keep her away from clocks or watches until the suggestion was fulfilled, and to note the time when this took place.

On June 24th, Miss A. gave me a paper, written and signed by herself, stating that F. D. gave her three flowers at 3.22 p.m., after spending six minutes in the garden.

No. 23. June 24, 1906 (12.25 p.m.), "from now"—in 7,200 minutes (due June 29, 12.25 p.m.).

This suggestion was fulfilled at the proper time. The making of the cross was witnessed, and the time verified, by Miss A.

No. 24. July 1, 1906 (3.59 p.m.), "from now"—in 2,935 minutes (due July 3, 4.54 p.m.).

No. 25. July 1, 1906 (3.59 p.m.), "from now"—in 8,935 minutes (due July 7, 8.54 p.m.).

No. 24 was fulfilled at 4.55 p.m., July 3rd, and No. 25 at 8.55 p.m., July 7th. In both cases the time was verified by Miss A., in whose presence the crosses were made. These results are practically correct, as it was probably 4 o'clock before the giving of the suggestions was completed.

No. 26. July 8, 1906 (12.2 p.m.), "from now"—in 1,705 minutes (due July 9, 4.27 p.m.).

Just after giving the suggestion I asked her if she knew what the time was. She said it was 12 o'clock. The cross was made at 4.30 p.m. on July 9th. When asked in hypnosis after its fulfilment what the time was when the suggestion was given, she said it was 12.5 p.m.

No. 27. July 8, 1906, 12.10 p.m.—in 3,145 minutes (due July 10, 4.35 p.m.).

This suggestion was fulfilled at the correct time.

No. 28. July 16, 1906 (12.30 p.m.), "from now"—in 4,580 minutes (due July 19, 4.50 p.m.).

This suggestion was fulfilled at 4.40 p.m. on July 19th and was witnessed by Miss A. When, after its fulfilment, the subject was asked in hypnosis what time she thought it was when the suggestion was given she said 12.20. When asked how many days, hours, and minutes are in 4,580 minutes she replied immediately, "3 days, 4 hours, and 20 minutes." The result of this experiment clearly points to her dependence on the calculations rather than to any true appreciation of time as it passes. She supposed, or guessed, that the starting time was 12.20 instead of 12.30 and fulfilled the suggestion in accordance with her calculation from the supposed time.

No. 29. July 16, 1906, 1 p.m.—in 7,460 minutes (due July 21, 5.20 p.m.).

This suggestion was fulfilled at the correct time and was witnessed by Miss A.

No. 30. July 22, 1906, 12.20 p.m.—in 274,800 seconds (due July 25, 4.40 p.m.).

When I had given this suggestion she said she could not do seconds, and again that she did not think she would do it correctly. This belief was no doubt based upon her remembrance of her complete failure in the preliminary experiment made on March 30th. Nevertheless No. 30 was fulfilled correctly on July 25th at 4.40 p.m. and was witnessed by Miss A.

The results of the foregoing experiments having convinced me that the method employed did not necessitate on the part of the subject any continuous watching of the time as it passed, I sought some way of giving the suggestions which would do so. So far there is evidence only that a subconscious calculation is made soon after the suggestion is given; and if the date so arrived at is some weeks ahead, the subconscious mind, having noted the time at which the act is to be performed, seems able to go off duty as it were and simply wait for the arrival of the proper day.

But the experiments may be so arranged as to make it impossible for any immediate calculation to be made, and to make an almost continuous watching of the passage of time a requisite of success. The method I have adopted is to make the subject tell the number of days, hours, or minutes which elapse between the giving of the suggestion and a pre-arranged signal; the time at which the signal will be given being left undetermined when making the suggestion. The results of this method of investigation are made more striking by the use of automatic writing. It is possible in this way to get the result of the subconscious watching of the time without having to reinduce hypnosis. An example will illustrate what I mean.

On February 16th, 1907, at 12.30 p.m., I made the following suggestion to F. D. in hypnosis: "The next time I call to see you, as soon as I give you a pencil and paper, you will write down the number of hours and minutes that will have elapsed between 12.30 p.m. to-day and the moment at which I give you the pencil." When I made this suggestion the date of my next visit was unknown even to myself.

On February 20th I called to see her at 10.35 a.m.—a very unusual hour for my visit. At 10.40, before hypnotizing her, I gave her a pencil and a piece of paper. She immediately wrote down "94—10." She was wide awake, and on being questioned she denied all knowledge of having written anything. In hypnosis she said that what she had written was meant for 94 hours 10 minutes, that being the time that had elapsed since I made the suggestion on February 16th. The answer is correct. She could give no explanation of how she knew. She admitted that she might have thought over the matter in her sleep at night, but she did not remember having made any calculation. She had no recollection of having thought anything about it that morning (February 20th). She had been very busy and had not noticed what time it was when I called.

On February 20th, 1907, I made a similar suggestion at 11 a.m., the interval this time to be expressed in minutes instead of in hours.

On February 25th I called to see her at 12.50 p.m. At 12.55, before hypnotizing her, I gave her a pencil and paper. She smiled and asked what she had to do now. As she did not write immediately I engaged her in conversation on a subject that interested her, and she talked to me quite freely and intelligently. At the end of two minutes she wrote down "7,315." (This is the correct number of minutes from 11 a.m., February 20th, to 12.55 p.m., February 25th.) I paid no attention to the writing for a few minutes. At a pause in the conversation, covering the paper with my hand, I asked her if she had written anything. She did not know. She thought she had noticed her hand moving, but she was not sure. I showed the figures to her, but she did not know what they meant. In hypnosis she knew what she had written and what it meant. She also remembered the conversation which took place while she was awake during the two minutes preceding the writing of the figures. On being asked how she kept the record of the time she said she did not know. She had no recollection of making any calculation after I had given her the pencil. On being put into a deeper stage of hypnosis and questioned she said she remembered adding 25 to 7,290. She "knew" that it was 12.55 when I gave her the pencil, and she knew that at 12.30 the number of minutes that had elapsed was 7,290. She thought that she kept the record up to time every half-hour, but she was not sure about this.

In these experiments I think there was a continuous subconscious watching of the time as it passed, and I believe that the only calculation employed was the mental addition which took place at regular or irregular intervals. What these intervals were I could not find out. It may, however, be suggested that instead of watching and counting the hours and minutes as they passed, F. D. made a subconscious calculation after I arrived. I do not deny that this may be a possible explanation ; but considering the length of time she usually took to do such calculations subconsciously, I do not think that she could have arrived at the correct answer in the short time which elapsed between my arrival and the production of the writing.

I have repeated these experiments on another subject, Mrs. C., who, as I have already said, disliked figures and was not good at mental arithmetic. In this case I obtained the answers by automatic speech instead of writing. On February 21st, 1907, at 3.20 p.m., I gave the following suggestion to Mrs. C. : " It is now twenty minutes past three. The next time I call to see you, when I ask ' How long ? ' you will tell me how many hours will have elapsed from now till then." I called to see her on February 27th at 3.20 p.m., and at once asked " How long ? " She replied at once, " 144 hours." (Right.) In the waking state she said she did not know what this meant ; but she said she had felt conscious that she had been counting the hours. At first she did not know what this counting meant and thought it silly, but she came to the conclusion that it was something I had asked her to do. She did not consciously count ; but every few hours a number came into her head. She sometimes found herself thinking of some number of hours in the middle of the night when awake. In hypnosis she could give me no further information. In deep hypnosis she said she remembered thinking of 144 hours while lying reading just immediately before I entered the room.

On February 27th, 1907, at 3.30 p.m., a similar suggestion was given to Mrs. C., the interval to be expressed in minutes instead of in hours. On March 5th, at 3.40 p.m., when she was asked " How long ? " she said, after a few minutes, " 8,735 minutes." (Wrong—85 too many.) In the waking state she said that she had been greatly troubled by the feeling that she had been adding up figures, but she did not know what they meant. In hypnosis she knew that she had been adding up the minutes since 3.30 p.m. on February 27th, but she did not know how often she made the additions. In deep hypnosis she said that her last addition had been 8,395 + 340. This was made after I asked her " How long ? " but she did not know how she had got these figures.

II

Delboeuf's experiments on his subjects M. and J., and Dr. Bramwell's experiments on Miss D., have many points in common with those numbered 1 to 30 which I have just recorded. In all, the suggestions were given in such a way as to necessitate some calculation whereby the moment at which the act fell due became known to the subject's subconscious intelligence. That such a calculation was made by their subjects is admitted by both Delboeuf and Dr. Bramwell ; but they both seem to have forgotten the main object which Delboeuf had in view when he devised the plan of giving the suggestions in minutes instead of in days. That object was to eliminate the giving of a fixed date for the fulfilment of the hypnotic command.

Now it must be apparent that when the subject has made a calculation by which he arrives at the terminal time, his subconscious intelligence is as surely in possession of a fixed date as if it had been mentioned to him when the suggestion was given. When Delboeuf at 6.30 a.m. told J. to pull the cook's nose in 1,600 minutes,[1] he might just as well have told her to do so at 9.10 a.m.—provided that she was able to make the necessary calculation. As a matter of fact J. was a very poor arithmetician, and her calculation was wrong by 60 minutes. In the same way when Dr. Bramwell, at 3.30 p.m., on February 26th, told Miss D. to make a cross on a piece of paper in 20,180 minutes,[1] he might just as well have told her to make it at 3.50 p.m., on March 11th; for Miss D. was very good at this sort of mental arithmetic. When this experiment came to be fulfilled it was evident that Miss D. had correctly calculated the terminal time, but the cross was not made until 3.51½. This slight discrepancy between the calculation made and the appreciation of the time points us to a fundamental distinction which should be made in considering these and similar experiments. If we do not keep separate these totally different questions, the results appear to be more astonishing and inexplicable than they really are. How subconscious calculations of the kind necessary in these experiments can be performed by half-educated girls is one problem; how somnambules can appreciate the passage of time, so as to know when the terminal minute so calculated arrives, is another and a totally different problem.

---

[1] Delboeuf, *Proceedings S.P.R.*, Vol. VIII., p. 418.

Each observer has encountered certain difficulties in understanding how the necessary calculations were or could have been performed by the subjects. The ignorant peasant girls with whom Delboeuf experimented were in his opinion absolutely incapable, in the waking state, of reducing to hours such a number of minutes as 1,150. Unfortunately Delboeuf did not examine M. to see whether during hypnosis her arithmetical powers were any better than during the waking state. He did, however, test J.'s powers during hypnosis, but he does not say whether they were better or worse than during the waking state. They were certainly very feeble, since after ten minutes of severe mental effort she failed to tell how many hours are in 300 minutes. But it may be noticed that J. succeeded very seldom in fulfilling hypnotic commands at the right time. If we disregard for the time being any errors that may have been due to faulty time appreciation, and suppose that all her errors were due to miscalculation, we find that she made the same sort of mistakes in the experiments cited by Delboeuf as she made when trying to do calculations during hypnosis or in the waking state. Further, although J. was unable, during hypnosis, even after struggling with the problem for ten minutes, to tell how many hours are in 300 minutes, it is possible that she might have arrived at the correct solution had she been allowed five hours in which to make the calculation. And that is practically the length of time that would have been at the disposal of her subconscious intelligence if she had been told in hypnosis to perform some act at the end of 300 minutes. All through the ensuing hours her subconscious mind would have been free to grapple with the problem, and it is probable that she would have arrived at the correct solution and would have fulfilled the command at or about the proper time.

---

[1] Bramwell, *Hypnotism*, p. 128.

Delboeuf's neglect of questioning his subjects in hypnosis with regard to their fulfilment of the suggestions, while diminishing the value of his observations and leaving much untold that might have been of interest, yet saved him from encountering the more formidable difficulties which Dr. Bramwell had to contend with when he tried to find out how his subject made the calculations in the series of experiments of which he has given so admirable a record.

At an early stage in his investigation Dr. Bramwell attempted to find out during hypnosis the subject's mental condition in reference to the suggestions. In reply to his questions she informed him: [1] (1) That when the suggestions were made in hypnosis she did not calculate when they fell due. (2) That she did not calculate them at any time afterwards during hypnosis. (3) That she had no recollection of them when hypnosis terminated. (4) That no memory of them afterwards arose in the waking state. (5) That shortly before their fulfilment she always experienced a motor impulse, i.e. her fingers moved as if to grasp a pencil and to perform the act of writing. (6) That this impulse was immediately followed by the idea of making a cross and writing certain figures. (7) That she never looked at clock or watch until after she had made her record.

---

[1] Bramwell, *Hypnotism*, p. 122.

On almost all of these points my own observations on F. D. are in complete agreement with Dr. Bramwell's findings. The only noticeable difference is in regard to the awareness of the motor impulse. F. D. certainly had a motor impulse, but she was aware of it only as a vague feeling that she had to do something. This vague feeling soon became defined, and she knew that she had to make a cross and write down the time.

Another and more important difference between Dr. Bramwell's results and mine is to be found in connexion with the hypnotic memory of the suggestions in the period intervening between the time when they were given and their fulfilment. Dr. Bramwell says that when Miss D. was questioned in hypnosis as to unfulfilled suggestions, "she invariably recalled the fact that these had been made, but rarely remembered their exact terms. She always asserted that she had never thought of them, did not know how much time had elapsed since they had been given nor when they were due." [1]

From the very beginning of my experiments on F. D. I found that when hypnotized in the period intervening between the giving of a suggestion and its fulfilment, she almost invariably remembered the exact terms of the suggestion, when it had been given, and knew when its fulfilment fell due. Yet she, like Dr. Bramwell's subject, denied all knowledge of having made any calculation. The most that she would admit was that she thought of figures sometimes in her sleep; but she could not remember any calculation although she sometimes said that she remembered thinking of the questions and the answers on these occasions. In the waking state she had no recollection of dreaming about figures.

---

[1] Bramwell, *Hypnotism*, p. 137.

This absence of hypnotic memory as to the manner in which the calculations were made is regarded by Dr. Bramwell as one of the principal points which demand explanation in connexion with his experiments.[1] Since the acts of hypnotic life, with certain well-marked exceptions which he cites, are performed consciously, and can be recalled by suggestion in subsequent hypnoses; and since, further, the hypnotic memory is more exact and far-reaching than the normal one, the absence of memory in hypnosis as to given circumstances of hypnotic life, other than those which he cites, is regarded by him as markedly suspicious.[2] From what we know of hypnotic memory, he thinks it is impossible to doubt that if calculations had been made by the subjects, they would have been able to remember them when again hypnotized.

---

[1] Bramwell, *Hypnotism*, pp. 409, 410.

[2] I am not quite sure what Dr. Bramwell means by "markedly suspicious." He does not, I imagine, mean to impugn the subject's good faith, although that is the interpretation which first suggests itself to the reader. Nor do I think he means that the absence of memory is evidence either of absence of consciousness or of the non-making of calculations. He admits that calculations are made and that they are made by "some intelligence." What I think he does mean is that the absence of memory is strong evidence that the calculations are not made by the "hypnotic self." He says: "The fact that nothing could be recalled by the ordinary hypnotic self regarding calculations which must inevitably have been made in some form of hypnosis, apparently showed that the subject possessed a third substratum of the personality" (op. cit. p. 391). By "some form of hypnosis" I think Dr. Bramwell means some stratum of hypnotic consciousness.

In the reasoning which led him to this conclusion Dr. Bramwell seems to have made an assumption which is not warranted in the present state of knowledge. The memory in hypnosis of the events of previous hypnoses is as a rule very complete; but we have no evidence that re-hypnotization will enable us to revive in the mind of the subject all subliminal mentation that may have taken place during waking life. In fact, so far as this question has been made a subject of investigation, the available evidence, when closely examined, points rather to an opposite conclusion. In many of Gurney's experiments on automatic writing it was found that the subject when re-hypnotized could not remember what he had written automatically in the waking state until he had visualized the actual writing which he had produced. This ignorance in hypnosis of the content of subliminal thought was still more apparent when some simple calculation had to be made before the writing was produced. Thus when W—s was told in hypnosis to sum the digits from 1 to 9 and instantly awakened, planchette wrote down the figures and summed them up. But when the subject was re-hypnotized he had no recollection of what he had written, or even of having written at all.[1] This result, however, was exceptional. As a rule the subject, on being re-hypnotized, knew what he had written; if he had written the answer to any sum given to him in hypnosis, he knew what figures he had written; but there is little evidence in Gurney's papers that the subject ever remembered the actual steps of the calculation by which he had arrived at that answer. It does not seem, however, that Gurney directed his attention specially to this point, as there is no explicit mention of it in his paper.

I have repeated Gurney's experiments on several subjects, and while getting results entirely congruous with those obtained by him, only under exceptional circumstances and by inducing a very deep stage of hypnosis have I succeeded in reviving in the mind of the subject the slightest recollection of the various stages of the mental process employed in the solution of the problems. If the calculations are made during hypnosis there is as a rule no difficulty in remembering in subsequent hypnosis the various steps by which the answer is arrived at.

---

[1] Gurney, *Proceedings S.P.R.*, Vol. IV., p. 304.

I gave F. D. a simple sum to do during hypnosis. She gave me the correct answer. I then woke her. On being re-hypnotized she remembered doing the sum and also the various steps in the calculation. I then told her I was going to give her a little sum to do after she woke up. She was to divide the figures I would give her by 3, and to tell me the answer when I asked, "What's the answer ?" Having explained so much I said : "The figures you are to divide by 3 are 420, wake up !" She awoke immediately, and I said at once, "What's the answer ?' She replied, "I don't know what you mean." "What's the answer ?" "I don't know, unless it's 160—that's all I can think of." I re-hypnotized her and said, "Do you remember doing that sum ?" "No. I gave you the answer, 160, but I think that's wrong." "Do you remember *doing* the sum, and how you came to make a mistake ?" "No. I don't remember." I then induced a deeper stage of hypnosis by simple verbal suggestion. I said, "Now sleep deeper —sleep—deep—deep—deep—Do you remember doing that sum ?" "Yes." "How did you make a mistake ?" "I divided the 4 by 3, and then I forgot and divided the rest by 2."

As the result of many similar experiments I have found that when subconscious calculations are made during waking life in response to suggestions given in hypnosis, the mental processes involved cannot be recalled in subsequent hypnoses unless the state of hypnosis induced is of the nature of a much more profound sleep than that in which the original suggestions were given. In many instances, no matter what artifices I might adopt, I failed to revive anything but the vaguest traces of recollection.

Up to a certain point in his reasoning Dr. Bramwell seems to assume that the self-consciousness of the hypnotized subject can exhaust the content of the subliminal mind in its totality. Yet, at a later stage, by postulating as the real calculator a third self,[1] separate and distinct from the hypnotic self, he practically abandons the basis on which his whole argument so far has rested.

The tendency of some modern psychologists lightly to give up belief in the unitary character of man's being is greatly to be deprecated. Neither the records of multiple personality nor the phenomena of hypnotism warrant the conclusion that every human being contains within himself an indefinite number of separate selves. In spontaneous cases of multiple personality the complete dissociation of consciousness manifested in the different states may justify the use of the word self to designate each of the alternating phases; and the same may be said of some exceptional hypnotic subjects, such as Janet's Léonie;[2] but neither convenience nor customary usage justifies the application of the term to those isolated manifestations of subliminal thought which may be exhibited spontaneously, or as a result of hypnotic suggestion, in healthy persons. It may be convenient, however, in investigating such operations of the subliminal part of the mind as are manifested in connexion with the hypnotic state, to conceive subconsciousness as a part of the stream of consciousness as a whole, but flowing at different depths below the surface known to us by introspection in the waking state. Or, to change the metaphor, we may regard it as we do those regions of the earth's crust which lie below the surface of every-day observation. The danger of such metaphors is obvious, but it is probably less misleading to speak of the hypnotic stratum of consciousness than of the hypnotic self. This is especially so if by using the term hypnotic self we imply that it is co-extensive with the subliminal self; for there is abundant evidence, derived from various sources, that the region of mental life laid bare at any one time by the induction of hypnosis is but a fraction of the subliminal, just as the supraliminal is but a fraction of mental life in its totality.

---

[1] Bramwell, *Hypnotism*, p. 413.

[2] Pierre Janet, *L'Automatisme Psychologique*, 2nd Ed., Paris, 1894.

We must not then suppose that hypnotization will enable us to bring to the surface the memory of all subliminal mentation which may go on during waking life. The memory test in regard to mental processes supposed to be carried on at the hypnotic level, has positive but not negative validity; and even if a want of recollection during hypnosis of the events of previous hypnoses did not sometimes occur, we could not deny the possibility of a subconscious train of thought,—even if this were started by a suggestion given during hypnosis,—of which no recollection can be aroused by re-hypnotization. So far as I can find, writers on hypnotism have not dealt explicitly with this question. Much of the evidence to be found in Gurney's papers, and that which I have met with in my own investigations, points to a very curious conclusion with regard to the elements of subconscious thinking that can be recalled in the hypnotic state. Sensory impressions that have been subliminally perceived are as a rule remembered in hypnosis; and with the memory of the impression comes a memory of the thought accompanying or occasioned by it. Bodily acts, such as writing or speaking, originating subliminally, are also, as a rule, remembered in hypnosis; and along with the recollection of the written or spoken words there comes of course a knowledge of their meaning; and there may be thus a simulation of remembrance of the content of a subconscious thought.

When a thought has not been the immediate result of a subliminally perceived sensory impression, or has not been externalized in any motor act, a memory of it may sometimes be found in hypnosis if the thought is the conclusion of a subconscious train of reasoning, or the answer to a problem which has been solved subliminally.

Generalization in regard to the peculiarities of hypnotic and post-hypnotic states is nearly always a mistake; and I do not for a moment deny that in exceptional circumstances memory of a much wider range of subliminal thought than that which I have indicated may be found during hypnosis; but in the ordinary somnambule it is, I think, very difficult to find any indisputable evidence of memory of a subconscious thought which cannot be included in one of the categories I have named.

As I have said, acts originating subliminally are remembered, and with the remembrance of the act comes also a remembrance of the thought which immediately prompted it. But if this act is the result of a subconscious train of reasoning or of calculation, there may be, and in my own experiments I have found that there generally is, no recollection of the various antecedent stages of thought which have led up to it. The evidence as to these unremembered things is mainly negative; for example, the difficulty in finding any hypnotic memory of the actual doing of subliminal calculations. As to remembered things there is, of course, plenty of evidence. If a post-hypnotic act is to be performed when the operator coughs for the fifth time, the subliminal perception of the coughs is remembered in hypnosis; and if the subject be hypnotized after the fourth cough he will sometimes give proof of being in an attitude of expectancy for the final signal. There is abundant evidence that acts originating subliminally are remembered—all suggested post-hypnotic acts for example. Even if the act in question had not been distinctly specified when the suggestion was given, but was the result of a certain amount of spontaneity and choice, or of even more elaborate mental processes, on the part of the secondary consciousness, the doing of it can, as a rule, be recollected during hypnosis. That the results of subliminal calculation may sometimes be remembered in hypnosis was shown in the series of experiments with F. D.; but that they sometimes may not be remembered is equally clear from Dr. Bramwell's observations.

The difficulty in finding any memory of the continuous thinking which we know can go on subliminally would seem to be especially great if the train of thought necessitates some concentration of subliminal attention, as in the calculations required in the time-experiments recorded by Delboeuf, Dr. Bramwell, and myself; and I know no better description of the nature of the mental state in which such calculations are presumably made than that given to me by F. D., in hypnosis, when she said that she "went into such a very deep sleep when doing them that she could not remember anything about the actual calculations afterwards."

This deepening of the sleep, which I believe actually takes place—a "sleep" of the hypnotic stratum of consciousness—may be merely a concentration of attention on the problem to be solved. The amount of attention which can be brought to bear is at all times limited; and even during waking life, if the attention becomes completely absorbed by some experience, the marginal elements in the conscious field may become so wholly submerged that only at the end of the experience do we "come to ourselves" and take up the thread of our life in relation to the external world. So when subconscious attention is concentrated on the solution of an arithmetical problem given in hypnosis, absorption in the problem becomes so complete that only when the solution has been attained does the consciousness of the hypnotic stratum "come to itself," and enter into relation with those subconscious thoughts which form the memory-continuum of the hypnotic state.

In the case of my own subject, F. D., the period of natural sleep seemed to be the time chosen for the working out of the calculations. And it is reasonable to suppose that the subliminal is seldom so completely segregated from the supraliminal consciousness as not to be to some extent disturbed in its operations by the experiences of waking life. But when the repose of natural sleep supervenes we can imagine the subconscious mind at the hypnotic level settling down to the solution of its task, becoming absorbed in its work, and " coming to itself " when the problem has been solved. Again I appeal to the information given by the subject in hypnosis ; F. D. said that she sometimes remembered thinking in her sleep of the questions *and the answers,* but she denied all knowledge of having made any calculations.

The second point which Dr. Bramwell thinks demands an explanation is " the fact that the suggestions not only involved feats of arithmetical calculations and memory far beyond the subjects' normal powers, but also in some cases beyond their ordinary hypnotic ones."[1]

I have already referred to the calculations made by Delboeuf's subjects, and I have pointed out the importance of the amount of time which is at the disposal of the subconscious intelligence for the working out of the problems. In regard to Dr. Bramwell's experiments and my own, the first thing which must be taken into consideration is the comparative simplicity of the earlier problems and their gradual increase in difficulty as time went on. We must not undervalue the facility in calculation which practice brings, and whatever method of reducing minutes to hours and days a subject may adopt, there seems little doubt that familiarity with certain equivalents of minutes in days and hours must soon become established, and be utilized in the solution of what at first sight may appear very complex arithmetical problems.

---

[1] Bramwell, *Hypnotism*, p. 409.

I find that the apparently clumsy plan adopted by F. D. of making the number of minutes in a day her basis of calculation is singularly well adapted for the solution of such problems; for just as in the earlier experiments the number of minutes in one, two, or three days became fixed in the mind, so in the later and more difficult ones simple multiples of 1,440 showed at once the number of days, *plus* or *minus* some number of minutes less than 1,440, in any given experiment. For example, after a little experience of problems of this description, one soon comes to know and to remember that 10,080 is the number of minutes in a week. Given this knowledge it will be seen that the first problem correctly solved in hypnosis by Miss D. (Dr. Bramwell's Exp. 26) [1] was a very simple one indeed. At 3 p.m. on Wednesday, Feb. 12, a suggestion was given to be fulfilled in 10,115 minutes. The only mental arithmetic necessary is to subtract 80 from 115. The suggestion is then at once known to be due in a week *plus* 35 minutes, or "next Wednesday at 25 minutes to 4 p.m."

Looked at in the same way, many of the other suggestions which at first sight seem to necessitate considerable powers of mental arithmetic, are rendered very simple. Thus in Dr. Bramwell's Exp. 39—in 20,180 minutes from 3.30 p.m.—all that is necessary is to recognize that 10,080 × 2 = 20,160, and the date at which the suggestion falls due is immediately seen to be 3.50 p.m. a fortnight hence. Practically all the problems solved correctly by Miss D. in hypnosis were of a similarly simple kind; and of the few to which I got correct answers from my subject F. D., the same thing holds good.

In his statement of the point demanding explanation in regard to the calculations, Dr. Bramwell assumes that arithmetical powers are always greater during hypnosis than in waking life. The evidence in favour of this belief is by no means unequivocal. We have seen that in Delboeuf's subject J. there was during hypnosis apparently little improvement in her calculating powers ; and my own experience with most of my somnambules is quite in accord with this result. On twenty-four occasions Dr. Bramwell's subject, Miss D., was asked, immediately after the suggestions were given, and before the termination of hypnosis, to calculate when the suggested act fell due. In the first nine instances she was wrong, and in the remaining fifteen she was right in eleven and wrong in four. "As the experiments advanced, not only the frequency, but also the extent, of Miss D.'s errors in calculation decreased, and the answers were given much more rapidly. Sometimes the correct replies were almost instantaneous, and in these instances no conscious calculation could be traced." [1] Here, again, we have to note the effects of practice in facilitating the mental operations necessary in such calculations. There is really nothing very wonderful in the fact that an intelligence which has been for several weeks engaged in solving problems such as were given to Miss D. in hypnosis, should at last succeed in telling, almost immediately, when an act to be performed at the end of 10,050 minutes falls due. Dr. Bramwell says that in the waking state Miss D. failed in doing mental calculations, unless the sums were extremely simple. But she similarly failed, to begin with, in the hypnotic state. Had a parallel series of problems been given to Miss D. in the waking state from the beginning, or even from the 8th of January, when she was first asked to make calculations during hypnosis, there can be little doubt that by February 5th, when she first succeeded in giving a correct answer in hypnosis, she would have been able to solve the same problem as readily in the waking state. But no such training of the waking intelligence having taken place, the hypnotic intelligence was by February 5th, if not the better calculator, at least in possession of certain data, useful in the particular kind of calculations required, of which the waking intelligence was quite ignorant.

---

[1] Bramwell, *Hypnotism*, p. 127.

---

[1] Bramwell, *Hypnotism*, p. 137.

The most curious detail of these problems solved in hypnosis, and one which I have frequently verified in my own experiments, is that when correct answers were given immediately, " no conscious calculation could be traced." I presume that by this phrase Dr. Bramwell means that the subject herself was not conscious of making any calculation. But we must remember how difficult introspection is to an untrained mind; and the difference between a conclusion arrived at by a short calculation and one which depends immediately on a knowledge of certain facts, is sometimes not quite obvious, even to a trained observer. I know that there are 365 days in a year. If I am asked how many days there are from the 1st of January, 1907, to the 2nd of January, 1908, and I answer immediately 366, have I made a calculation? Or am I merely stating a fact which is as well known to me as that there are seven days in a week? So if Miss D., in hypnosis, knew that there are 10,080 minutes in a week, would it be necessary for her to make any calculation to tell when an act suggested to be done in 10,090 minutes fell due?

As I have already indicated, a memory of the results of subconscious calculations made in response to suggestions given in hypnosis becomes a possession of the hypnotic stratum of consciousness. Thus when F. D. worked out on paper, during hypnosis, the calculation in experiment No. 13, she put down 1,440 and multiplied it by 10. She *knew* that 1,440 is the number of minutes in a day, and thought that " anyone would know that." This knowledge was, no doubt, the result of a subconscious calculation which she had forgotten.

In my own experiments I gave my subjects very few opportunities of making calculations in hypnosis. I rather directed my attention to the investigation of the subconscious calculations which are made after hypnosis has terminated. I have found little evidence that calculation in hypnosis is, as a rule, appreciably more rapid or more accurate than in the waking state, except in so far as such data as I have indicated, resulting from training during hypnosis or from subconscious calculation in post-hypnosis, may become a possession of the hypnotic stratum of consciousness, and thereby facilitate the solution of such problems during the hypnotic state. With regard to subconscious calculations performed after hypnosis is terminated, the investigation is more difficult, and the conclusions to be arrived at more doubtful. In some of Gurney's experiments there seems to have been a more rapid calculation than was possible in the waking state. In my own experiments I have found little evidence that mental calculations can be performed subconsciously more quickly than they can be in hypnosis or in ordinary waking life. On the contrary, I have found, in some cases at least, that if the waking consciousness is actively engaged, a length of time as great or greater than would be required for the solution of the problem in ordinary waking, or in hypnosis, is necessary for the subconscious calculation. On the other hand, there is evidence to show that problems, the mental solution of which would seem to be beyond the powers of the waking or of the hypnotic consciousness may be correctly solved under favourable circumstances, such as during natural sleep, as the result of a purely subconscious calculation.

Although I am inclined to ascribe most importance to the uninterrupted concentration of attention which may be possible at the hypnotic level, and to the length of time which is available by the subconscious intelligence for making the calculations, still, there may be, in some instances, both in hypnosis and in post-hypnosis, a facilitation of mental operations at the hypnotic level which is impossible in supraliminal thought. Such a facilitation of mental calculations would arise if the subject were able to visualize the figures employed, so that they had for him the reality and permanence which suggested visual hallucinations have for many somnambules.

We know from the work of Charcot, Gilbert Ballet, and Sir Francis Galton, that individuals vary very much as to the nature of the sensory images which they most habitually use as their counters of thought. Some people, when thinking of things or events, depend almost entirely on their visual memory. Some, on the other hand, rely greatly on auditory or kinæsthetic representations. Even the thinking that is done in words is subject to similar variations, and there are some people whose most abstract thought is accompanied by a train of visual verbal imagery. With regard to words, however, this is undoubtedly exceptional; and notwithstanding the opinion of Bain and Stricker, that motor representations form the material of our recollection in the use of words, I think there is little doubt that the view put forward in this country by Dr. Charlton Bastian, and in France by Victor Egger, which gives pre-eminence to auditory representations, is true for the great majority of people who habitually think in words. But with regard to the thought-symbols of arithmetic, it is quite different. Here visual representation is the rule; and it will, I think, be found that skill in mental arithmetic is almost always accompanied by unusual powers of visualization.

So far as my own experiments go, I have found that if a somnambule is a good *visuel* he will, other things being equal, be more expert at mental arithmetic during hypnosis than one who is not. He will also, I think, show increased capacity, or at least will solve the problems more rapidly during hypnosis than in the waking state. I have also found some indications that he will perform calculations subconsciously in post-hypnosis more rapidly, but on this point the evidence is not very conclusive.

Although individuals vary greatly in their powers of visualization, very few people in the waking state can visualize sufficiently well to enable them to keep steadily before the mind all the figures in a sum of any considerable length ; but if a somnambule is *visuel* in the normal state it is quite possible that during hypnosis, or in the working of the hypnotic stratum of consciousness at other times, such an increase of faculty may readily take place. If this possibility be accepted, and if allowance be made for hypnotic training of the calculating faculty, for increased power of attention at the hypnotic level of consciousness, and for the length of time at the disposal of the subconscious intelligence in arriving at a correct solution of the more difficult problems, the contention that the solution of these problems involved feats of arithmetical calculation beyond the normal powers of the subjects loses much of its force. We should rather be inclined to expect that somnambules who have undergone some training in subconscious calculation, might be able to perform subconsciously problems as difficult as any that they could do in the waking state with the help of pencil and paper.

I have made only one or two experiments of this nature. On one occasion I told F. D., during hypnosis, to write down in my presence the next time I called to see her, the number of halfpennies in £36 17*s.* 11½*d.* I saw her two days later, and while awake and talking to me she wrote down the correct answer. Awake, she did not know what the figures meant, or why she had written them. In hypnosis she remembered the suggestion, and knew that what she had written was the answer. She did not know when she had solved the problem, and had no recollection of having made any calculation. On another occasion I asked her, while awake, if she knew how many yards are in a mile. She said she did not. In hypnosis I told her to write down, in my presence, when I called to see her again, the number of feet in two and a half miles. She said she was sure she could not do this. The correct answer was written down in my presence five days later.

Although the solution of the more difficult problems occurring in the time-experiments would seem to necessitate some such facilitation of the mental calculations as I have suggested, there is not, in the instances recorded up to the present, anything to warrant the belief that the subconscious powers of the subjects are in this respect any greater than might be expected from their standard of education, and were these the only examples of subconscious calculations on record we might be content with some such explanation as I have suggested. But the powers of subconscious calculation exhibited by calculating prodigies such as Gauss or Dase should deter us from being too sure that the solution of the comparatively simple problems given to hypnotic somnambules may not be the work of some truly supernormal faculty the mere suspicion of whose existence would be a heresy for orthodox science.

The third point which Dr. Bramwell thinks needs to be taken into consideration when trying to explain the results of his own experiments is the difference in the nature of the time-appreciation required in Gurney's cases and in those cited by himself. He says: [1] "There is a marked difference between the recognition of a particular day on its arrival, and the last minute in such a series as 40,845. . . . Granting that some intelligence worked out the arithmetical portion and determined that the suggestion fell due, for example, at 3.25 p.m. a fortnight later, the determination of the arrival of that particular moment differs widely from the recognition of the dawning of a given day."

Now I venture to think that unless special precautions are taken to keep the subject away from all ordinary means of knowing the time, there is very little difference indeed between the two kinds of experiment. Dr. Bramwell says that in Gurney's experiments the secondary intelligence would have no difficulty in recognizing the terminal day because "the varying impressions from the external world, which tell us that a new day has dawned, would be received as freely by the secondary as by the primary consciousness."[1] But in the same way the visual or auditory impressions which give information of the time of day to the primary consciousness will be equally open to the secondary consciousness; and the secondary consciousness will be on the lookout for such information even when the primary consciousness is so engaged as apparently to preclude all time watching.

---

[1] Bramwell, *Hypnotism*, p. 412.

The difficulty of preventing such access of subliminal knowledge will be especially great when the experiments are carried on in towns; for then, unless special precautions are taken, it is almost impossible to keep the subject out of reach of visual or auditory indications of the passage of time. Clock-dials assail the eye at every step, and church-bells chime the quarters all through the day and night; and we must not neglect the possibilities of the information that may be so obtained by a watchful subconsciousness. In this connexion we must also bear in mind the possibility that subconscious perception may have normally the immensely extended range which perception in hypnosis attains under suggestion. If such be the case, the difficulty of assuring ourselves, even when apparently stringent precautions are taken, that the subconscious mind does not receive its information through the ordinary sensory channels is greatly increased. When no such precautions are taken it seems obvious that under ordinary circumstances there is little difference in the nature of the time-watching involved, whether the suggested act is to be fulfilled on "the 39th day from this," or at "3.25 p.m.

---

[1] Bramwell, *Hypnotism*, p. 412.

a fortnight later." But if, as Dr. Bramwell says,[1] "in some instances Miss D. was in a darkened room for several hours before the suggestion was executed, and absolutely without any of the ordinary methods of determining the time, even if she knew what o'clock it was when she entered the room, at noon, how could she determine when it was 3.25?" Now, I think we may take it for granted that whether "she" knew the time or not when she entered the room, her subconscious intelligence knew—if, in order to fulfil the suggestion correctly, it was necessary for it to know. So that the original problem of recognizing the arrival of the terminal minute of 40,845 minutes becomes reduced to that of appreciating the passage of time for 3 hours and 25 minutes, or of knowing when it was 3.25 p.m. If we can exclude the possibility which I have suggested that even in the darkened room her subconscious mind was not "absolutely without any of the ordinary methods of determining the time," then we have arrived at what I consider to be the ultimate problem demanding explanation in all these experiments on the appreciation of time by somnambules.

My own observations carried on in the quiet of the country are to some extent not open to the same criticism as are those of observers working in more populous districts. F. D. lives in a cottage far removed from church bells, and the only clock in the house is the kitchen clock, which does not strike the hours. She possesses a watch which she keeps wound up; but she scarcely ever wears it when she is at home. It generally lies on her dressing-table all day and all night. Her opportunities of obtaining subliminal information of the "time of day" through ordinary sensory channels are thus very restricted; and experiments with her afford better evidence of true time-appreciation than those with subjects whose surroundings give more opportunities for subliminal perception of such ordinary indications of the passage of time as I have referred to.

---

[1] Bramwell, *Hypnotism*, p. 412.

What I mean by true time-appreciation is the power of marking the passage of time without any guidance, either supraliminal or subliminal, which can by any possibility be referred to changes going on in the external world. If the conditions necessary for testing this power can ever be arranged, it is evident that they can be maintained for only comparatively short periods. We cannot expect to find subjects who are willing to be confined in a dark room for any length of time, or to have the usual routine of their lives disturbed for the sake of our experiments; and even if such subjects could be found, there are probably few competent observers who could spare the time necessary for making exact observations.

The nearest approach to evidence of a true time-watching taking place over a longer interval than a few hours is to be found in connexion with prolonged hypnotic sleep. I lately had occasion to recommend to Mrs. C. a sleep of forty-eight hours, with intervals for meals. I saw her on a Tuesday, and she told me that she could spare the necessary time after 3 o'clock the next day. I was going away from home on the Wednesday, so I gave her the necessary instructions during hypnosis on the Tuesday. I said: "To-morrow at 3 o'clock you will go to sleep. You will sleep till 9 o'clock and then wake up and have some supper. You will then go to sleep, and sleep till 8 o'clock next morning. You will then wake up and have breakfast. After breakfast you will go to sleep, and you will sleep till 1 o'clock," and so on. I saw her on Thursday and found that my instructions had been followed out. Each time she had awakened she had remained awake for half-an-hour exactly, and had then fallen asleep again. This exact half-hour interval must have been the result of an auto-suggestion; for I had not given any definite instructions as to how long she was to remain awake. On the

Friday I called to see her in the forenoon and found her sleeping peacefully. I awoke her and asked her if she knew what day it was. She said it was Friday. She showed some hesitation as to whether it was forenoon or afternoon, but finally said it was forenoon. She was quite unable, however, to tell what the time was. She was unwilling even to guess, for she maintained that she had no idea what it might be. I said to her, "Sleep. What is the exact time?" She replied at once, "11.20." I took out my watch and found that her answer was correct. There was no clock in the room. I did not know what the exact time was until I looked at my watch.

In this case there seems to have been a true appreciation of the passage of time throughout the whole period of sleep. The watching of the time was done by the hypnotic consciousness; and the knowledge of the time of day so obtained was in the possession of the hypnotic consciousness alone.

Apart from such observations as may be made in connexion with prolonged hypnotic sleep, I greatly regret that I have never been able to spare the time necessary to test my subjects' powers of true time-appreciation over a longer period than half-an-hour.

I have, however, made a large number of observations within the limited time at my disposal, and these are sufficient to convince me that in the true time-appreciation of somnambules we have to deal with a power which in the present state of knowledge can only be described as supernormal.

Gurney made many observations on his subjects in regard to their power of appreciating the passage of short periods of time. He has recorded a number of instances in which an act suggested in hypnosis has been performed more or less punctually at the end of a given number of minutes, the subject having been under observation during the whole course of the experiment. He also utilized automatic writing with planchette to obtain evidence of the subconscious time-watching that can go on during the waking state. The subject, having been taught how to write with planchette, was told in hypnosis to perform some act in a given number of minutes, and that he would be required at some time before then to write the number of minutes that had passed. Thus one of his subjects "was told on March 23rd that a quarter of an hour after his next arrival he was to open and shut the door of the room, and to note the course of time as usual. The next evening he arrived at 7.6½. He was set to the planchette at 7.19. The writing, produced at once, was 13 *min. and 2 more.* At 7.22 he rose, walked across the room, opened and shut the door, and returned to his seat. Here the reckoning was not more than half a minute out." [1]

I have made a great many observations more or less on the lines of Gurney's experiments; but I have thought it best to make the suggested act as simple as possible. It is important in testing for accuracy in time-watching that the act to be performed should be one to which the subject has no objection whatsoever, so that when it is about to be performed in the waking state there may be no resistance from the supraliminal consciousness to be overcome. This ensures its fulfilment at the moment of the subliminal invasion. It is also well that the act should be one which can be performed rapidly, so that as little time as possible may elapse between its beginning and its end. The suggestion given in most of my experiments was that at the end of so many minutes the subject should raise her right or her left hand above her head. She was told to do it rapidly as soon as the idea of doing so arose in her mind. Sometimes two or three suggestions were given together, the acts to be performed at the end of different time-intervals. In obtaining automatic writing in these experiments, instead of using planchette, I always got the subject to write with a pencil. A few examples will sufficiently illustrate the nature of these experiments.

---

[1] Gurney, *Proceedings S.P.R.*, Vol. IV., p. 309.

I suggested to F. D. in hypnosis, without telling her the time, that in eleven minutes exactly she would raise her right arm. She was then awakened, and she raised her arm at the end of ten minutes. On another occasion she was told in hypnosis that her right arm would go up in four minutes. This suggestion was fulfilled in hypnosis about ten seconds too soon. She was then told that her arm would come down in three minutes. This was fulfilled in the waking state in three minutes exactly. When she was asked why her arm came down, she said it got so heavy that she could not keep it up any longer.

On another occasion, at 3.50 p.m., I told her in hypnosis to put her left arm up in fifteen minutes. At 3.56 I told her to put her right arm up in nine minutes. Soon afterwards she was awakened. Her left arm went up at 4.4 (one minute too soon). A minute afterwards she laughed and said her right arm wanted to go up too. She raised it at 4.5 exactly (right).

I have carried out similar observations on several somnambules with almost identical results. Some subjects, it is true, seem to be more accurate in their estimation of these short time-intervals than others; but in every case where I have made a series of observations I have found the same tendency to slight errors, although on the whole a remarkable accuracy in time-estimation was exhibited.

The mean error varies with different subjects. In a series of thirty-one observations on F. D. in the estimation of periods varying from one to fifteen minutes, the mean error was 1·009 minutes. In fifteen observations on Mrs. C., with periods varying from two to ten minutes, the mean error was ·78 minutes. In a series of sixty observations on various subjects with periods varying from one minute to half an hour, the mean error was ·89 minutes.

One very curious result to be noted in these experiments is the apparent limitation of the amount of error, no matter what the suggested time-interval may be. An error of one minute seems as likely to be made when the suggestion is for fifteen minutes as when it is for three minutes. We might have supposed that a subject who has just performed at the end of two minutes an act suggested to be performed in three minutes, would be likely to perform in ten minutes an act suggested to be performed in fifteen minutes. But it is not so. The most likely time for the fifteen minute suggestion to be fulfilled is in fourteen, fifteen or sixteen minutes. The maximum error met with was one of six minutes in a time estimation of eighteen minutes; but this occurred in one of a complicated series in which four suggestions were running concurrently. In the great majority of cases, in the estimation of periods up to half an hour, the maximum error was not more than one or two minutes. In thirty per cent of the trials on all subjects, the time-interval was accurately determined.

In experiments of this description it would seem that there is an actual watching of the minutes as they pass, just as in Gurney's original experiments there was a watching of the days. But since minutes are purely artificial divisions of time and have not for us the concrete character which days have, the way in which this watching is done needs some explanation. It is comparatively easy to understand how a subconscious intelligence may watch the passage of days and count them as they pass; but it is by no means easy to understand how this same intelligence, unaided by any artificial mechanism such as a clock, can accurately subdivide "time's continuous flow" into periods which correspond to a given number of minutes.

We know nothing of time apart from sensible experience.

Time as a psychological datum is but a quality of our sensations and our feelings. Empty time is an abstraction of the metaphysician, and except in a relative sense is unknown to the psychologist: time perceived is always filled. We perceive a sensible present which has duration. Presentations increasing in complexity give us a feeling of a future which is coming towards us; presentations diminishing in complexity give us a feeling of a past which is receding behind us; and the relatively unchanging complexity of the "now" of experience gives us a feeling of "the specious present" which forms our sole distinct intuition of time.[1] All cognition of time apart from the directly experienced "now" is conceptual and has to be represented symbolically. But judged by a "standard time," the specious present of different individuals seems to vary in its duration; and in any particular individual this duration seems to vary at different times. The symbolic conception of a period of time attained by summing up the "nows" of so-called empty time, or by counting the sensory changes experienced in filled time, would thus lack all utility in thought and all validity in practice were there not some changes, referable to the external world and habitually experienced by all human beings, which may be utilized as a standard of measurement. For practical purposes the mean solar day is so used, and by mechanical contrivances this period of time is subdivided into hours, minutes and seconds. But until clocks are constructed these subdivisions of time are not given in experience, and there is no necessary correlation between the "now" of experience and the second of the mean solar day.

Hours, minutes and seconds are thus artificial devices for measuring the number of sensory changes experienced in succession. The passage of five, ten or twenty minutes has no meaning apart from such sensory changes; for awareness of change is a necessary condition of the perception of time.

---

[1] *Cf.* H. R. Marshall: "The Time Quality," *Mind*, Jan. 1907, p. 1.

The manifestations of consciousness as we know it empirically are conditioned by its cerebral substratum, and the number of successive impressions that can be apperceived in a given time is limited by the rate at which certain physico-chemical changes can take place in nervous tissue. If consciousness were independent of any material substratum we have no reason to suppose that any such limitation would obtain in regard to the number of presentations or representations that would be possible in a given time. For such a consciousness the measure of time would be altered, and the phenomenal world would be transformed.

Certain philosophers believe that the normal self-consciousness does not exhaust its object—the Ego, and that there is in man besides the empirical consciousness with its physiological measure of time, also a transcendental consciousness with another measure of time peculiar to itself. This transcendental consciousness is supposed to emerge when the empirical is set to rest, and its measure of time is said to be a characteristic incident of dreams. The condensation of representations in certain dreams is accounted for by supposing that the dream-consciousness is not fettered by any physical substratum, and that its measure of time is therefore not physiological but transcendental. A consciousness with such a measure of time in its highest degree would see time, as Luther said, not lengthwise but crosswise; all would be in a heap before it.

I refer to these matters merely in order to point out that when we meet with some form of consciousness which can accurately determine the passage of five, ten or twenty minutes without any apparent guidance through the ordinary channels of sense, however much we may feel tempted to postulate some transcendental faculty in explanation of the phenomenon, we may rest assured that we are dealing with a consciousness whose mode of cognizing time differs not at all from that of the consciousness which we know empirically.

In seeking an explanation of the time-appreciation of somnambules we seem bound to look to the methods used when similar judgments are made by the ordinary waking consciousness. If in the waking state we are denied all ordinary means of marking the passage of time we can still make judgments, less or more accurate, as to the length of any given interval. If we sit with our eyes closed and try to determine when five minutes have elapsed, we may arrive at a very close approximation to the proper interval if we set ourselves deliberately to count. We have ingrained within us a sense of rhythm, based upon memories of certain sensory experiences, which enables us to revive fairly accurately the time-intervals in the swing of a second pendulum. By summing up three hundred such imaginary pendulum beats we may, if we keep the rhythm true, judge very accurately when five minutes have elapsed. Even if our minds are occupied in some other way and we do not attempt to count, we may still make a guess as to when the time is up. Such guesses, however, are very liable to gross error, and it seems evident that the accurate appreciation of time-intervals by somnambules cannot be accounted for on any hypothesis of mere guessing.

Apart from rhythmic counting, when cut off from all changing sensory impressions derived from the outer world, we seem to have no faculty for judging accurately of the passage of time. Yet a somnambule in the hypnotic trance, deprived of all such sense-impressions, and, so far as his hypnotic consciousness is aware, not deliberately counting or making any effort to note the passage of time, makes such judgments with an accuracy which precludes the possibility that they are the result of mere guessing. If we believe that the accurate time-estimates of somnambules during the trance are the result of some form of conscious counting, the want of knowledge during hypnosis as to how it is done forces us to suppose that the process must be carried on below the threshold of hypnotic consciousness, or by some fragmentary portion of this consciousness temporarily dissociated from the hypnotic stratum as a whole ; and a similar supposition must be made with reference to the equally accurate time-appreciation which takes place subconsciously, in response to suggestion, during the waking state. Further, if such a form of subconscious counting takes place, it is not necessary to suppose that it is a counting of some imaginary rhythm. For it seems probable that the lower strata of consciousness can take cognizance of various organic processes which are, or may be, unperceived or generally unattended to by the waking self. And if a correlation has been subconsciously established between such phases of organic life and our artificial divisions of time, the subconscious watcher is provided with an objective time-measurer which is liable to only slight variations of regularity. Such variations as normally take place in the rate of the heart-beat or of respiratory movement, are just such as would account for the inaccuracies exhibited by somnambules in their estimates of short periods. In longer periods of true time-watching the organic rhythm will usually average its normal rate, and consequently the amount of error in the time-estimates of the subject is not likely to be greater for half an hour than for five minutes.

While some such explanation seems necessary to account for the accurate appreciation of short time-intervals, there is another possibility which must be taken into consideration in regard to the fulfilment of post-hypnotic acts at a particular moment which has been previously determined by subconscious calculation. That possibility is that these somnambules may have the power, exhibited sometimes by individuals who have never been hypnotized, of knowing the time of day, intuitively as it were, without any conscious or subconscious perception of such sensory impressions as normally give us this information. I have frequently tested F. D. on this point, and have found her to be extremely accurate in her estimates. And it is a curious fact that this power, never manifested by her previously, became greatly developed during the course of the experiments ; so that she often astonished her friends by her accurate telling of the time under circumstances which seemed to preclude such knowledge as she showed. When tested during hypnosis she was almost invariably absolutely correct when a suggestion of clairvoyance with regard to the kitchen clock was given. The following extract from my notes will serve as an example.

On April 18th, 1906, I asked her in the waking state what time she thought it was. She said 11.30. I told her I thought she was rather slow. In hypnosis she said she thought it was 11.40. I then suggested that she should see the kitchen clock and tell the exact time by it. She said she could not see it. I told her to sleep deeply and she would see it clearly. " Can you see it ? " " Yes." " Well, what time is it ? " " About 12 o'clock." " Tell me more exactly." " I can't see the hands properly." " Look steadily and you will see. What is it ? " " Five minutes to twelve." I then woke her up, and went into the kitchen with her and looked at the clock. It was a very small American clock, about three inches high. The hands pointed to four minutes to twelve.

I do not pretend that this was really clairvoyance. The few attempts I have made in other directions to test this power, so firmly believed in by the early mesmerists, have been almost entirely negative. Yet when confronted by such difficulties as meet us in trying to explain the peculiar gifts so commonly exhibited by hypnotic somnambules, or the less common manifestation of similar powers by persons who have never been hypnotized, we are bound to neglect no evidence, which has been testified to by credible and careful observers, that may possibly throw any light, however dim, upon these obscure regions of psychological research. And whether we hold fast to the accepted conclusions of orthodox science, or allow ourselves to stray into the vaguer regions of transcendental speculation, in the present state of knowledge the difficulties to be met with in connexion with the appreciation of time by somnambules are of such a nature as inevitably to entail, on any hypothesis, a considerable residuum of unexplained phenomena.

CHAPTER II

A STUDY IN HYSTERIA

AMELIA GERALDINE P. . . . was 29 years of age when I first attended her professionally in 1901. She is unmarried, and lives at home with her father and two sisters. Her father is a retired tradesman, and she has had an education suitable to her station in life. Her family history is good, there is no discoverable neurotic taint, and she enjoyed good health up to the beginning of 1901. There is an indefinite history of some slight affection of a choreic nature when she was about eleven years old.

On February 3rd, 1901, a very cold day, whilst out walking, she was suddenly seized with a paroxysm of coughing. She went home, and as the cough persisted, I was sent for. I found her temperature just over 100° F. and sent her to bed. The cough was of hysterical type, and lasted for twenty-four hours with very little intermission.

Two days afterwards, the patient still being in bed, a twitching of her left hand was observed. I was called in as soon as it was noticed, and I found the movements limited to a rhythmic extension of the left wrist. This soon came to be combined with supination of the hand. If opposed, the movements became more violent and irregular. In the course of the evening, the left elbow joint was included in the movements, and next day the whole of the left arm was affected. The temperature ranged from 99° F. to 101° F. The movements ceased during sleep. The deep reflexes were much exaggerated, especially on the left side. The patient was dull and apathetic, and complained of pain in the head. On February 7th the left arm was still jerking vigorously, and the left leg became affected in a similar manner. The leg movements began with rhythmic contractions of the muscles which produce inversion of the foot. Next day the whole of the left leg was included in the movements, and the arm was still in the same condition. On February 10th the right foot began to be affected in the same way as the left had begun, namely by rhythmic inversion of the foot, and on February 11th the whole of the right leg was included in the movements, and the right hand had begun to be extended at the wrist and supinated. On February 12th the whole of the right arm was affected, while the movements of the left hand had somewhat abated. The patient's speech became affected in a peculiar manner. There was ptosis and photophobia of the left eye. Pain in the head was severe. The temperature was 100·6° F.

The speech defect was not investigated at this time as the patient was too ill, but the general impression it gave was that there was a great preponderance of sibilants. She seemed to have no difficulty in saying what she wanted to say, but merely a faulty pronunciation, such as "ses" for "yes," "sad" for "bad," and so on.

From this date, February 12th, 1901, the movements began to abate, and in their disappearance they followed the exact order in which they had come on. First the left hand and arm became quiescent, then the left foot and leg, then the right foot and leg, and lastly the right hand and arm. The pain in the head got better and the temperature went down. By March 5th, 1901, all the movements had ceased. The deep reflexes were still exaggerated, and testing them tended to produce a temporary return of the contractions.

There was now found to be complete anæsthesia with loss of muscular sense of the whole of the right arm with the exception of the thumb and index finger. This had been preceded for some time by a loss of accuracy in localizing impressions. Some time later it was discovered that the whole of the right half of the body had become totally anæsthetic and analgesic with the exception of the thumb and index finger. There was paresis, more or less pronounced, of all the limbs, and for many weeks there was almost total inability to walk. The left arm and leg were at first more paralysed than the right, but they recovered more quickly. There was very marked concentric reduction of both visual fields.

At various times during her convalescence there was some recurrence of the muscular spasms, but as time went on, the rhythm of the movements became quicker and their extent more restricted, so that they had in the end rather the character of a coarse tremor than of clonic contractions. Sometimes they lasted for days in one limb without any intermission except during sleep. All her limbs were affected in this way at some period of her convalescence, but in no definite order. At various times there was a return of coarser movements of the limbs, but they had to a great extent lost their rhythmic character and were of a more choreic type. The left arm and shoulder were affected for a long time in this way, but by July 20th, 1901, both the choreic movements and the coarse tremor had quite disappeared. There was, however, still great loss of power in the limbs. In the beginning of August I sent her to Folkestone for a change. At the end of a fortnight she returned very much improved in every way. She afterwards made a more or less uninterrupted recovery, and in the course of some months became practically well. By the end of July, 1902, the only trace of her illness was a total hemianalgesia of the right side of the body with the exception of the thumb and index finger. This condition seemed to cause no inconvenience whatsoever, and it remained unaltered until November 9th, 1906, when it suddenly completely disappeared.

The patient's condition with regard to motor power, sensation, kinæsthesis, and the reception and production of spoken and written language was tested many times during the course of her illness. I will only refer to some of the most striking peculiarities observed in regard to kinæsthesis and speech.

It must be remembered that the index finger and thumb of the right hand were at no period of her illness involved in the hemianæsthesia which for so long affected her, nor was she ever deprived of the knowledge to be gained by kinæsthetic impressions from these two members, even when the loss of muscular sense was complete in the rest of the arm. If passive movements of the right arm were made, the patient being blindfolded, she had no knowledge of the position of the limb, except when the forefinger and thumb came in contact with something that she recognized, such as her dress or her hair. When she was blindfolded, active movements of the right arm were very imperfectly performed. If asked to raise her hand on to her knees she felt with her forefinger and thumb as she slowly slid her hand along her dress. When the arm was kept away from her side she was unable to perform the action, but she kept moving the forefinger and thumb as if trying to come in contact with something that she might recognize.

One day in July, 1901, she was lying on a sofa when I called to see her. I asked her which leg she could move best. Her answer was, " The right one, if I can see it." I asked her to bend the leg at the knee without looking at it. She said she could not, but on being urged to try she made the limb move slightly, and the foot slipped off the sofa on to the floor. On asking her where her foot was now, she said she did not know. I told her to look.

She did so, and said it had slipped down. "Now," I said, "lift it up and lay it beside the other one." In order to do so she sat upright, so that she could see exactly where her foot was, and then quite easily and rapidly she replaced it on the sofa.

The type of paralysis here disclosed is of very rare occurrence, and is met with only, I think, in cases of most profound anæsthesia. Very few instances of the kind have been recorded.

The earliest indication of any disturbance of speech was the sibilant lalling which came on at the end of the first week of her illness. On analysing at a later date the defects in her speech production it was found that all the vowels were given their proper value when used in words. If the vowels were pronounced by themselves they were always prefixed by a *y* sound, thus, *ya*, *ye*, *yi*, *yo*. Of the voiceless oral consonants *p* was always given as *s*, and the voiceless *w* as *y*. Of the voiced oral consonants *w*, *l* and *r* were always pronounced as *y*, while *g* was given as *d* in the earlier part of her illness and later as *g*. *B* was at first given as *s*, but later as *b*. Of the voiced nasal resonants *n* was the only sound which gave any trouble. For example, she always referred to the letter *m* as "am m." It may be noticed that the difficulties were confined to the labials and the linguo-palatals.

Although for more than a year her speech was characterized by these peculiarities, her sisters assured me that on several occasions during that period they had heard her saying her prayers with a faultless pronunciation.

When the acute phase of her illness was over it was found that she could not read. She could still write, but her writing reproduced all the peculiarities of her speech, the substitution of the letters *y* and *s* for other letters corresponding to the substitution of these sounds in her spoken language. She was unable to read what she wrote, so the peculiarities which rendered her writing rather difficult to understand were not noticed by her. The handwriting was good when the tremor and paresis of the right arm had passed off. The following is a good example of the sort of letters she wrote at this period:

> My dea Hayy
> I was veyy seaseg to hea you ayyieg home safey You will be sussised to hea E . . . yode down on Sungay. O . . . & I went to meet him & as usuay he dave us a yost joyney tooc the yond tunind & came though ——. he is yoocind vey well & is comind adain nex Sattye weec. Well I cant yite any mo e I am tyied Love f om everyone
> S.S. Do you yice you Sotos.

The translation is:

> My dear Harry,
> I was very pleased to hear you arrived home safely. You will be surprised to hear E . . . rode down on Sunday. Ro . . . and I went to meet him and as usual he gave us a lost journey—took the wrong turning and came through ——. He is looking very well and is coming again next Saturday week. Well I can't write any more. I am tired. Love from every one.
> P.S. Do you like your photos.

It may be seen that the substitution of letters is very similar to that which was noticeable in her speech. There are, however, some differences. The only constant similarity in her speech and writing was the use of *y* and *s* for other letters. Yet it may be noticed that the letter *r* is sometimes written *y* and sometimes omitted altogether. The letter *l* is generally written as *y*, but in short words like "well" and "will" it is often written correctly. The phrase "love to all" is in some of her letters written correctly, in others as "yove to ayy."

In writing to dictation the same mistakes were made as in spontaneous writing. Thus the phrase "Let us go out" was written "Yet us do out." She could not do transfer copying—that is, copying from printed into written characters. In copying from writing she copied only such letters as she recognized; the others she "drew" very badly.

For many months she was almost totally word-blind and to a great extent letter-blind. On testing her with large printed capitals it was found that she could seldom recognize at sight the letters *b, c, d, e, g, k, l, n, p, q, r, x, y, z*. *D* was always called *g* without any hesitation, while *g* was not recognized at all or was mistaken for *c*. *K, l*, and *r* were always called *y*. *P* was always called *s*. *S* was recognized and named correctly, but she could not distinguish it from *p*. She had the same difficulties with written letters as with printed ones, but when she was allowed to trace over the written letters with the tip of her index finger she could name many of them correctly. This held good of all the letters which she made use of in spontaneous writing.

There were, however, certain letters of which she seemed to have lost all knowledge. For many months the letters *k, l, p*, and *r* were not recognized by sight, by sound, or by kinæsthetic impressions. They were not used in writing, nor were their sounds used in speech. One day after much trouble I taught her to pronounce the letter *p*, and the curious fact was observed that from that day she could use the *p* sound in speech, could read the letter in print and in writing, and could use it in writing spontaneously or from dictation.

She could name the numerals correctly up to 20, after which she said 30, 40, 50, etc. She could also write them, but was unable to read them after she had written. Even when allowed to trace over the figures with her forefinger, she rarely was able to name them correctly. In consequence of her difficulty in reading figures she was incapable of doing the simplest addition sums on paper. Yet she was still good at mental arithmetic. She was especially quick at the multiplication table, and never made a mistake.

The word-blindness was almost total for some months, but she was able to read with understanding long before she could recognize all the letters. Her power of reading, like her recognition of letters, came back gradually, and so far as could be judged, re-education had little to do with her recovery, although she had lessons every day. This was especially noticeable with regard to those letters which she had most completely forgotten. Prolonged efforts to teach her to recognize the letters *k*, *r* and *l* having resulted in complete failure, the attempt was given up. Yet in the course of time these letters came back to her. One day she discovered she could recognize *k*; some weeks later the same thing was observed with regard to *l*; and in the end she once more knew all the letters of the alphabet. The most striking instance of a good result from trying to teach her was the effect of showing her how to pronounce the letter *p*, or rather the *p* sound in words. Why regaining the power to produce the sound should have enabled her to recognize the letter may be difficult to explain, but there is no doubt as to the fact that the one followed the other almost immediately.

Since we may get word-blindness without letter-blindness, and letter-blindness without word-blindness, it is probable that her recovery of the power of reading words was not dependent on her recovery of the power of recognizing letters; but it was observed that improvement in both respects took place at about the same rate. The same holds good in regard to her speech, and the recovery of ability to recognize a letter was generally accompanied by the reinstatement of its sound in her speech. Whether one invariably preceded the other, and if so which returned first, I cannot say, as by the time such recovery took place her general health had so much improved that I had stopped seeing her regularly. Eighteen months after the onset of her illness she had quite recovered in every respect, with the exception of right hemianalgesia, which persisted for nearly six years.

During the whole course of this illness of eighteen months, and after recovery had taken place, the interpretation of the case was exceedingly difficult. The symptoms pointed to serious organic disturbance of the brain, combined, however, with a large functional element whose extent it was impossible to determine. The acute condition at the beginning corresponded to no known affection, and the long duration of the word-blindness was opposed to the view that it was of a purely functional nature. Yet it was almost impossible to understand how the various peculiarities of the case could be accounted for by any definite organic lesion. The fact that the patient could write, although she could not read, except by kinæsthetic impressions, showed that her word-blindness conformed to the type of " pure " word-blindness first described by Déjerine in 1892, but with regard to certain letters of the alphabet there was not only " blindness " but agraphia.

Except for the hemianalgesia, which caused her no inconvenience, the patient remained very well until December, 1904. On December 3rd I was called to see her on account of a twitching of the mouth which had been present for a few days. I found her lying on a sofa asleep. Her face was in repose until she awoke. As soon as she awoke, choreic movements of the mouth began. The mouth twitched first to one side, then to the other, and continued to do so without ceasing. Next day, while the movements of the mouth continued, the tongue became affected in a similar manner. She was drowsy and disinclined to talk. The temperature was 101° F.

On December 8th she became very deaf, especially in the right ear, and her speech became affected in the old way. Asked to spell "lazy," she said "*y*, *a*, *z*, *y*," and pronounced it "yazy." On December 19th the movements of the mouth suddenly stopped, but the tongue-movements continued. On December 20th severe headache came on suddenly. Complaint of headache continued for a month. On December 22nd the tongue-movements stopped. On this date I found that the right leg was paralysed. She was also anæsthetic and analgesic on the right half of the body. She was apparently very deaf, and did not understand what was said to her unless it was shouted into her left ear. Yet I sometimes got her to answer questions spoken in a low voice close to her right ear, and on several occasions she seemed to know what I was saying to her sisters. At all events she frequently made remarks very relevant to what we were talking about. Her sister told me that the patient had written some letters, and that her writing showed all the peculiarities which characterized it during her former illness. On January 19th, 1905, rhythmic movements of the right hand, like those which occurred at the beginning of her former illness, began. They lasted for eight days and then suddenly stopped. She became duller and less inclined to talk, and still complained of headache, earache, and deafness.

Her condition remained more or less unaltered for many weeks. Some of her symptoms passed off and new ones took their place. The following note was written by me on March 25th, 1905:

> Some days ago the paralysis of the right leg suddenly passed away. She said she heard a voice within her saying, " You can walk." She immediately got out of bed and walked without difficulty. There has been a serous discharge from the left ear for about a week, and now hearing in this ear is very much better. The right ear is still very deaf. For three months the middle, ring, and little fingers of the right hand have been closed in contracture on the palm. It was found necessary to place a pad of cotton wool in the palm to prevent the finger nails from cutting into the flesh. By using some force I can open the hand, but she complains that doing so hurts her. She can open the fingers quite easily by using

the other hand to force them open. She really uses no force at all, but the fingers open at once when she uses the other hand to open them.

She is now totally word-blind and letter-blind except for the letter *o*. She seems to have lost all knowledge of written and printed words. She cannot remember that she has ever known anything about them. She is absolutely agraphic and cannot even write her own name. She cannot read any words or letters by kinæsthetic impressions. Speech is very imperfect. There is lalling on many consonants. There does not seem to be any real word-deafness, although there seem to be some words which she does not understand. She does not know the multiplication table. She cannot count up to ten. After a little teaching she tries to do so, but always leaves out 2 and 8. She does not recognize any written figures. Although she has forgotten the multiplication table, she has a good memory for certain money tables learnt at school. She never makes a mistake in turning pence into shillings. I ask her what thirty-two pence make, and she answers immediately, "two and eight pence."

Throughout April, May and June, 1905, her condition did not vary much. The discharge from the left ear became tinged with blood. The left eye became affected in the same way, and every day some blood oozed from the lower eyelid, although no abrasion or solution of continuity of the skin or mucous membrane could be detected. This condition lasted until the end of July, 1905.

In the beginning of July, 1905, she went to Folkestone for a fortnight. She came back improved in health, and was now able to open and close all the fingers of her right hand. Her eye and ear still bled almost every morning, and she complained of great difficulty in seeing. On August 16th she consulted an eye specialist, who found an enormous amount of hypermetropia and prescribed Sph. + 3·75 glasses for both eyes. She could not see at all with these glasses, but on the other hand she could see much better than formerly without them. On August 19th, the day before she got her glasses, her eye did not bleed. On August 20th her ear did not bleed, and she told her father that her eye and her ear would not bleed any more. She had frequently made such announcements with regard to the disappearance of other symptoms, and on this as on former occasions her prognostication was correct. With the cessation of the bleeding from the ear, the deafness, which had lasted for seven months, entirely disappeared.

She still remained totally word- and letter-blind, she was also still completely agraphic, and she lalled in her speech almost as badly as ever. Yet her sisters informed me that they had occasionally heard her pronounce all her words perfectly when talking to children or strangers.

On October 28th, 1905, the total agraphia stopped, and she wrote me a letter in the style of the letters she used to write during her illness in 1901. The spelling in this letter corresponded to that which was observed in the latter part of her former illness, namely, the period during which her main trouble was with the letters *k*, *l*, *r*, and *p*.

On December 1st, 1905, there was sudden and complete recovery of sight, speech, and ability to read and write in a normal manner. The hemianæsthesia which had persisted since December, 1904, disappeared, but the hemianalgesia remained. I now stopped seeing her, but I learnt some months later that her sight became troublesome again, and that on the advice of a friend she consulted another eye-specialist. He prescribed Sph. + 1 glasses, and with these she was able to see much better than with her former ones.

On November 7th, 1906, the right hemianalgesia which had existed uninterruptedly since June, 1901, suddenly and completely disappeared.

During the course of this second illness, which lasted from the beginning of December, 1904, to December 1st, 1905, there was hardly any doubt as to the nature of the troubles from which the patient was suffering. Every fresh symptom helped to strengthen the conviction that all the peculiar phenomena which I have described were of functional or hysterical origin, and were not dependent on any organic lesion whatsoever.

I did not see the patient again until November 5th, 1908. She was then in bed complaining of headache and general *malaise,* and had a temperature of 100° F. She had kept well for nearly three years until a few weeks prior to the date of my visit. She had then begun to complain of her head, and had been much troubled by obsessional thoughts. These still continued to trouble her, and when I saw her on November 5th, 1908, they were her chief complaint. She said she constantly heard voices telling her to run away from home, or to throw herself into the water, and she was greatly distressed in consequence.

I tried to hypnotize her, but with little apparent success. Every day for a week I went through some brief hypnotic process, but thinking there was little probability of inducing a true hypnosis, I confined my attention almost entirely to making suggestions with regard to the headache and obsessions. During this treatment the headache got well and the obsessions became much less troublesome; but she developed many of her old hysterical symptoms. The old tremor appeared in both legs with occasional choreic jerks of the arms. Her walking powers were very defective, and she twice fell and hurt herself. Her old lalling speech returned. She became quite word-blind and letter-blind except for the letter *o*, and totally agraphic. I persevered with suggestions of her speedy recovery from all these symptoms, but with no effect.

On November 24th, 1908, I discovered that she now went into what seemed to be a genuine hypnosis with amnesia on waking, and I was disappointed that her speech affection, which I was now convinced had no organic basis, did not respond to my suggestions of recovery.

On November 25th, 1908, she developed her old contracture of the middle, ring, and index fingers of the right hand. She had no recollection of having suffered from this condition before, and its occurrence alarmed and worried her. She told her sisters that she was sure I could put it all right, and when I called next day she asked me to make her hand open. I hypnotized her, and told her that she could now open her hand quite easily, and that it would never again become closed against her will. She immediately opened her hand, and from that moment had complete use of all her fingers. Suggestions during this hypnosis as to cessation of the coarse tremors in the legs had no effect. Later in the day she complained of pain in the left ear, and feared that she was going deaf. There was also some blood-stained discharge from the right eye. Her sisters, remembering the trouble her eyes and ears had been in her illness in 1906, were uneasy about this symptom. The patient told them that she was sure I could cure the pain in the ear, and next morning she asked me to do so. This was easily effected, but suggestions as to cessation of the tremor in the legs and ability to walk and speak properly were of no avail.

On November 29th, 1908, what troubled her most was complete colour-blindness. She asked me to cure this. I hypnotized her and gave appropriate suggestions. At the same time I made a whispered suggestion to the effect that at 12 o'clock she would suddenly be able to read. Before waking her I said, " You feel now that you can see colours properly, don't you ? " " Yes," she answered with great assurance. " And what did I say about 12 o'clock ? " " That I should be able to read." " And you feel you will ? " She assented, but not with the same assurance as she had shown with regard to the colour-blindness. I then woke her, and showed her various pieces of coloured material. She at once named the colour of each of them correctly. Her sisters afterwards told me that at or about 12 o'clock the patient said she felt as if she could read a little. She tried to do so, and could understand most of the words, but long words still troubled her. In the course of the day this partial recovery regressed, and she could read only small words. Two days afterwards I succeeded in restoring her power of reading completely, and there has been no return of the word-blindness.

In the course of my attempts to dissipate some of her disabilities by suggestion, I was struck by the unequal success which attended my efforts. Some symptoms, like the contracture of the fingers, which in her former illnesses had remained unaltered for months, disappeared instantly at the first suggestion. Others, like the speech troubles and the difficulty in walking, seemed to be quite unaffected, no matter how often or how impressively appropriate suggestions were given. It soon became evident that the symptoms which were easily relieved were those which in her waking state she *asked* me to relieve, or those to the relief of which I had gained her free and unqualified assent during hypnosis. Without stopping here to inquire into the meaning of this peculiarity, I may say that, rightly or wrongly, I tried to make use of it for therapeutic purposes, and I endeavoured to induce her to ask me definitely to relieve those symptoms which most seriously impaired her bodily and mental health.

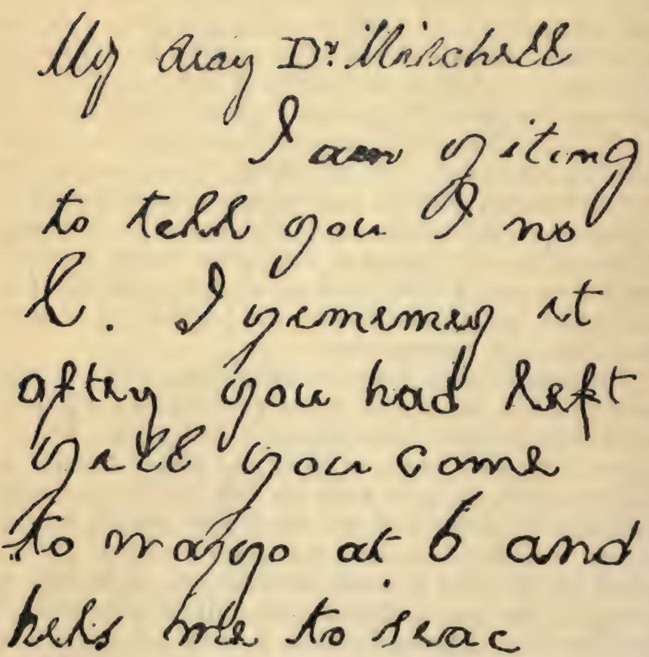
The condition I was most anxious to alleviate was the paresis and tremor of the legs, for, as she was practically unable to walk, she was kept a prisoner in the house, and her general health was suffering in consequence. Every day for a week I predicted to her that on Wednesday, December 2nd, 1908, all her trembling would cease, and that she would be able to walk as well as ever she did. On December 1st I told her in hypnosis to ask me to cure her legs when I saw her next day. This she promised to do, but there was a lack of assurance in her reply when I asked her if she felt sure that I could make her walk properly.

On several occasions when I had desired her to ask me to relieve some particular symptom, I had found on visiting her that some fresh trouble had arisen, which seemed to her more urgent than that which I was anxious to relieve. I was not surprised then to find on the Wednesday morning that she had fallen downstairs and hurt her back. When I asked her what she wanted me to do for her, she said I must take away the pain in her back ; but she made no reference to the trembling of the legs, or the inability to walk. I led her up to this by saying that, besides taking away the pain in her back, which I said would be quite easy, I wanted her to ask me to do something more for her. She then said that she wished me to keep her from falling and hurting herself any more. This gave me the opportunity to remark that the best way to do this would be to stop the trembling in her legs and to make her walk properly. To this she half reluctantly assented. I then hypnotized her, and made suggestions that her legs would stop trembling. These suggestions I continued for about fifteen minutes, but, although the tremor seemed to subside a little, there was no sign of its stopping. On being asked if she did not feel that her legs were going to become still in a very short time, she said she was trying to make them stop, but could not. " Oh," I said, " you need not try. All you have to do is to sleep a little more deeply, and they will stop of their own accord. Now, I am going to stroke your face, and at each stroke you will go more and more deeply asleep." I then began to stroke her face slowly from above downwards, and at the fourth stroke the legs suddenly became quite still. I told her that the trembling had stopped and would never return, and that now she could walk perfectly well. That evening she walked to my house, a distance of a mile.

I would like to dwell for a moment on the nature of these tremors, which thus suddenly stopped after existing unchanged for over three weeks. A similar trembling could possibly have been produced by voluntary muscular efforts, but this trembling was, as a matter of fact, occasioned by a series of inco-ordinate muscular contractions, which can by no possibility be produced by the waking will. All over both limbs could be seen groups of muscles and even individual muscles, momentarily standing out as if stimulated by a Faradic current. Each contraction was a violent twitch, which immediately passed off, or was repeated once or twice in rapid succession. At the same time other muscles in other parts of the limb were similarly affected, and a constant succession of such isolated and widely separated twitchings went on uninterruptedly.

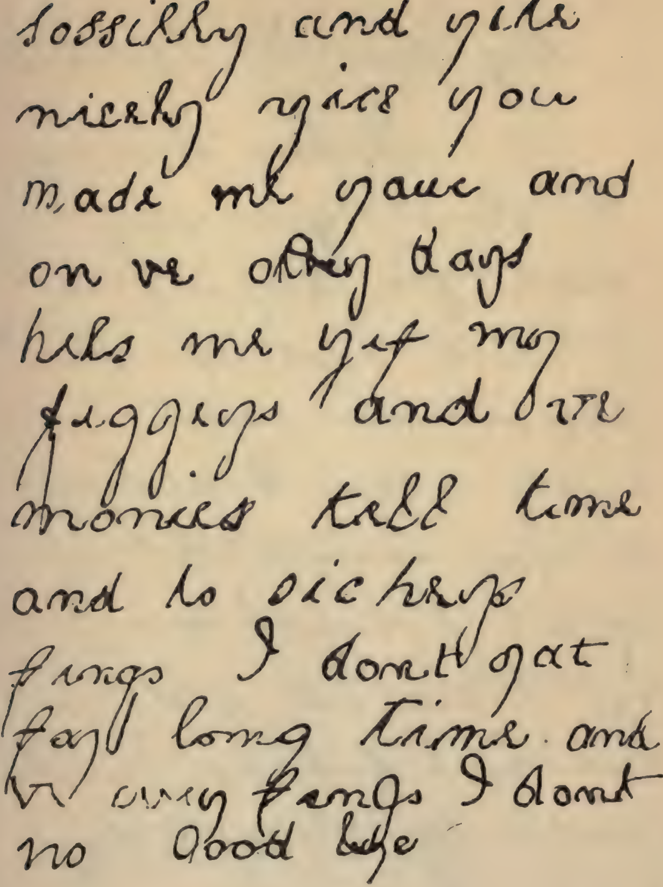
Why those twitchings stopped in response to suggestion I do not know. I do not think any one knows why such a result should occur, and it seems to me to be folly or dishonesty to pretend that we do. I have seen many strange things happen in response to suggestion during hypnosis, but I have not, I think, ever seen anything which more profoundly impressed me than the sudden cessation of those muscular contractions.

Encouraged by the complete restoration of her walking powers, I lost no time in trying to get an equally good result with regard to her speech and writing. During hypnosis on the evening of December 2nd, I told her to ask me next morning to make her talk properly and write correctly. This she said she would like, but she seemed a little doubtful as to the result. On December 3rd she asked me to make her talk properly and to be able to write, but the request did not come without some prompting from me. During hypnosis I made her promise to write me a letter in the course of the day, and to bring it to me. After hypnosis her speech was better, but by no means perfect, and I told her that it did not yet satisfy me. I said I still had difficulty in understanding her, and that I wanted her to talk *properly* and to write *nicely*.



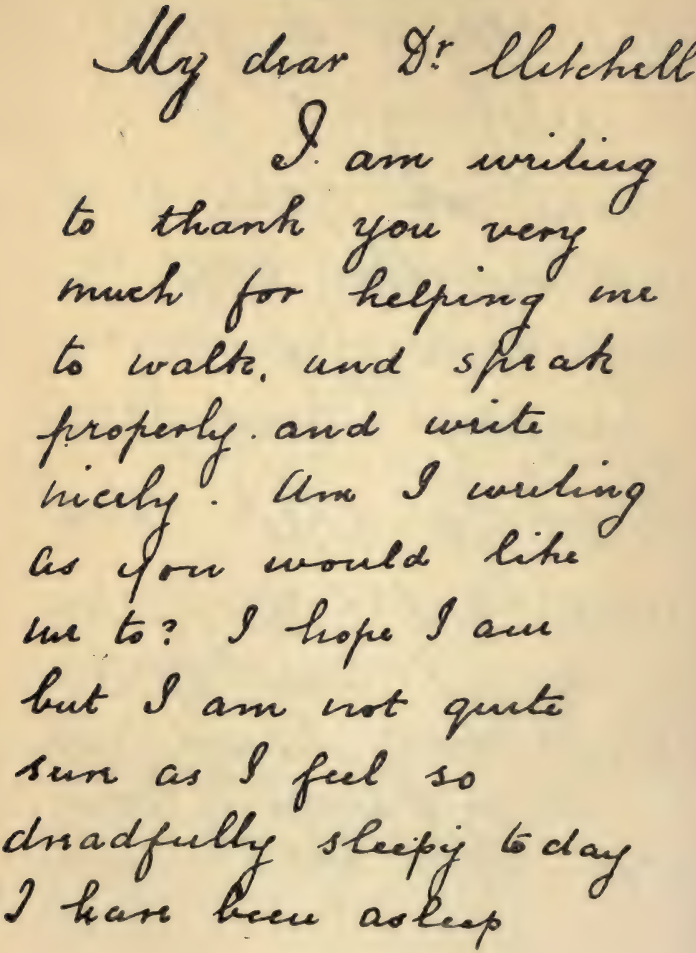
Letter of Dec. 3rd, 1908.

My deay Dr Mitchell
I am yiting
to tell you I no
l. I yememey it
aftey you had left
yell you come
to mayyo at 6 and
hels me to seac



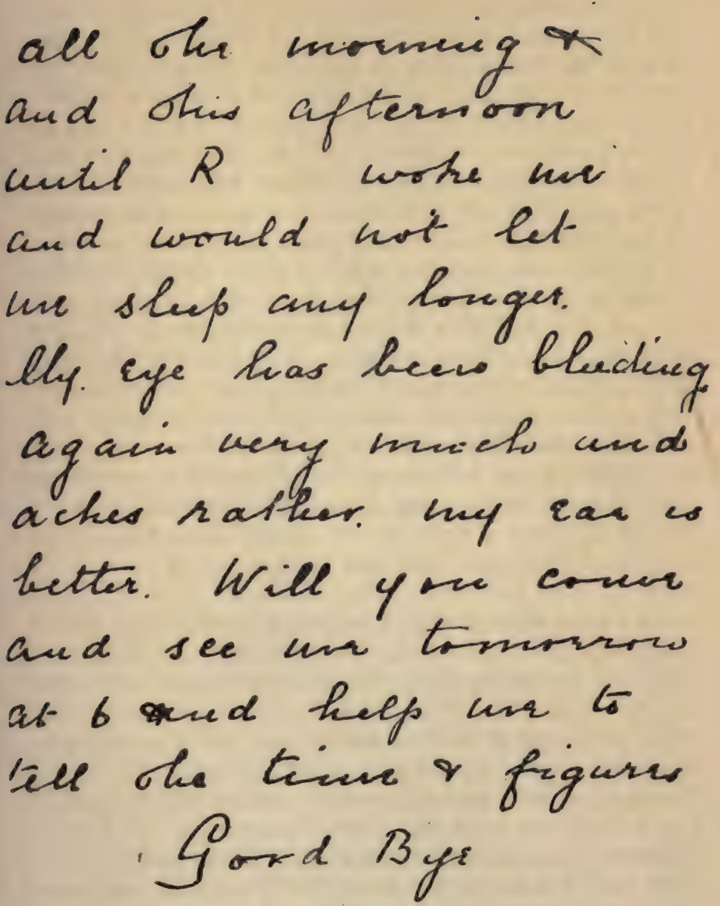
sossilly and yike
nicely yice you
made me yave and
on ve other days
hits me yif my
figgers and bite
monies tell time
and to sichrys
fings I dont yat
fay long time and
tr any fangs I dont
no good bye

Letter of Dec. 4th, 1908.



My dear Dr. Mitchell

I am writing to thank you very much for helping me to walk. and speak properly. and write nicely. Am I writing as you would like me to? I hope I am but I am not quite sure as I feel so dreadfully sleepy to day I have been asleep



all the morning &
and this afternoon
until R woke me
and would not let
me sleep any longer.
My eye has been bleeding
again very much and
aches rather. my ear is
better. Will you come
and see me tomorrow
at 6 and help me to
tell the time & figures
Good Bye

Both in the waking state and in hypnosis I made her promise to ask me next morning to complete the cure. The effect of the suggestions given on December 3rd with regard to writing may be seen in the letter of this date, which is reproduced above. It is very difficult to read, and her sister, who saw her writing it, told me that each individual letter in its composition was written backwards.

On December 4th she asked me quite spontaneously to make her talk *properly* and write *nicely*. She promised in hypnosis to write me another letter during the day. Immediately after this hypnosis her speech was practically normal, and the letter written in the afternoon was well written and free from mistake. This letter of December 4th, 1908, is also reproduced for comparison with the other.

Her chief disabilities having been removed, she very soon recovered her health, and although for many weeks she provided me with a variety of hysterical symptoms on which to exercise my therapeutic ingenuity, she was during this time a very different person from the helpless invalid of the years 1902 and 1904.

As I have already said, I was very much struck by the unequal results produced by suggestion in this case. Hypnosis was apparently profound; post-hypnotic amnesia was complete; the disabilities I was anxious to remove were obviously of a functional nature; all the conditions favourable to the speedy removal of any particular symptom seemed to be present; yet it was clear that to most of my suggestions there was some resistance of a kind quite different from the mere failure of response to suggestion that may be met with in ordinary psycho-therapeutic work. It is difficult to account for such resistance to therapeutic suggestion as was met with in this case. Obstinacy was certainly a very marked characteristic of the hypnotized patient, but we feel that there must be some good reason for unwillingness to accept curative suggestions. It seems to me probable that the resistance to which I have referred may be related to the resistance met with by Freud in the practice of psycho-analysis in cases of hysteria.

In Freud's opinion, hysterical symptoms are due to the repression of painful ideas, so that they no longer occupy a part of the conscious field and cannot be recalled voluntarily or by association. Relief from the psychical pain caused by an unbearable idea is obtained by a conversion of the repressed feeling into physical manifestations. This transformation is described by Freud as a defence reaction of the ego against unbearable ideas, and the "repugnance of the ego" is the psychic force which determines the repression. The aim of psycho-analysis is to recover the repressed ideas in their entirety, to bring them back into consciousness, and to let the feelings connected with them have their proper emotional expression. According to Freud, "a patient can rid himself of a hysterical symptom only after reproducing and uttering under emotion its causal pathogenic impressions."[1]

In the process of psycho-analysis, as practised by Freud, great resistance is sometimes encountered in trying to recover forgotten memories connected with the original psychic trauma, and Freud concludes that the resistance is due to the same psychic force which led to the repression, namely, "repugnance of the ego." When we try to drag these painful memories back into consciousness, some part of the patient's mind seems to know that the restoration of these lost memories will be accompanied by feelings that are unbearable.

Now if Freud's views on the causation of hysterical symptoms are correct, it would seem that when a hysterical symptom is removed *by suggestion*, the disappearance of the symptom must be accompanied by its re-conversion into some other symptom or into the original unbearable idea. And just as the "repugnance of the ego" to the unbearable idea may lead to resistance in psycho-analysis undertaken to disclose it, so the same psychic force may lead to the rejection of suggestions directed towards the removal of the hysterical symptom.

---

[1] Freud, *Selected Papers on Hysteria* (English Trans.), p. 100.

The mutual interchangeableness of somatic and mental affections in hysteria was strikingly shown on several occasions in the course of the treatment of A. G. P. by suggestion. When the obsessions of the early stage of the last illness disappeared, the physical manifestations began. When the cessation of the muscular twitching and ability to walk were obtained, there occurred a series of dreadful dreams, which affected the patient very strongly (see p. 94). When the most persistent of all the bodily symptoms—the right hemianalgesia—was removed by suggestion, she passed almost immediately from a state of comparatively normal mental health into a state of profound depression, accompanied by phobias and obsessions. In the middle of the night, some hours after the disappearance of the hemianalgesia, she wrote a most pitiful letter to her sister, in which she expressed the fear that she was going out of her mind, and begged her sister not to send her to an asylum. I received a letter from her next day, in which she said that " the awful thing in her head " kept shouting at her and telling her to do dreadful things. So great was her distress, and so evident seemed the connexion between the disappearance of the hemianalgesia and the appearance of the morbid mental symptoms, that I decided to bring back the bodily defect by suggestion, in the hope that by so doing the mental troubles might be ameliorated. I was careful not to give any indication to the patient why I wished the loss of sensibility to return, yet with the recurrence of the hemianalgesia she soon returned to her ordinary state and became free from all mental distress. Now if we can suppose that somewhere in her mind there was some sort of prevision that the removal of the hemianalgesia would be accompanied by such mental distress, there would be good reason for her prolonged rejection of my curative suggestions in regard to this symptom, and this rejection may be regarded as being due to the same cause as that which leads to resistance in psycho-analysis.

But although the relations between the resistance met with in psycho-analysis and the rejection of therapeutic suggestions are interesting, and may be worthy of further consideration, I wish here rather to describe how the resistance to suggestion met with in this case appeared to me at the time. In the course of treatment it seemed to become more and more apparent that there was a wilful rejection of certain therapeutic suggestions and an exercise of choice and discrimination as to what suggestions were to be allowed to be effective. Here was no passive state in which every suggestion is readily accepted, but rather a very obstinate and capricious person, who seemed to have some unusual kind of control over her own bodily organism. The rejection of therapeutic suggestions appeared to be the deliberate act of a second personality brought to light by the induction of hypnosis. In order to estimate the nature of this personality, there is one circumstance connected with the patient's history to which some reference must be made.

Soon after I began to attend A. G. P. in 1908, it became a common occurrence for her to talk in her sleep to her sisters before she awoke in the mornings. If one of them happened to be passing her door, she would call her by name, and she was never known to be in error as to which of her sisters it was. Indeed, they found it difficult to explain how she acquired the knowledge she sometimes showed in regard to their actions in various parts of the house. She was never known to speak in her sleep unless she had something definite to say and some one to say it to. There was no aimless or incoherent sleep-talking, as in dream or delirium. What she said was always the definite expression of a person who knew what she wanted to say and said it. The subject-matter of these conversations was as a rule confined to the symptoms or events of her illness, and her purpose in speaking apparently was that I should be informed of certain matters which she thought it important for me to know.

In the morning of December 4th, 1908, her father heard her crying out, and went into her bedroom. He found her asleep and evidently dreaming, as she was struggling and crying as if in terror. Later she called her sister to her room, because her right eye was streaming with blood and blood was oozing from her right ear. When I heard this story next day, I asked her if she had dreamt in the night. She said she did not think so. In hypnosis she told me that in the night a nasty man had attacked her, and hit her on the head with a hammer. When I referred to this episode as a dream, she insisted very firmly that it was a real experience, not a dream. In the waking state she had no knowledge of the matter at all.

Soon after this various articles of value belonging to her disappeared—her watch, some money, and her keys, for example, were lost, and could not be found. In the waking state she did not know where these things were, and she sought for them in vain. In hypnosis she confessed that she herself had hidden them, and told me where they might be found. She said she had hidden them because a nasty man had come to her in the night and wanted to steal them. This man who wanted to steal her watch and money was the same man who had attacked her with the hammer.

The whole of this dream life, and all the actions associated with it, belonged to the stratum of consciousness revealed in hypnosis. The waking consciousness had no knowledge of any of the events of this phase of the patient's life. But although in the primary state there was no knowledge of the events of the second state, there was in the second state full knowledge of all the events of waking life. This is, of course, the ordinary type of amnesia observed in all cases of deep hypnosis. But in this case there were many indications that the personality of the second state was different from that of a mere state of hypnosis, and it seemed to persist throughout waking life as a co-conscious personality capable of acting on its own initiative, and also capable of taking possession of the bodily organism at will.

Very soon after the sleep-talking in bed began, it was noticed that the patient often dropped into the second state in the day-time, and always on these occasions she spoke to her sisters of events connected with this phase of her existence, or made remarks in regard to events of her waking life which she would not have made if she had been awake. For example, in talking to her father, a querulous old man who was sometimes very trying, she would often make cutting or sarcastic remarks, which she would not have made in her ordinary state. He was often surprised at the things she said, but excused her on account of her ill-health. Her sisters, however, knew that when she said those things she had dropped into the second state, and they found that shortly afterwards she knew nothing of having said them. They said they never had any doubt as to which state she was in. In the second state her voice was different, her manner of speaking was more vivacious, she was more determined and assertive. She was exceedingly obstinate, very petulant, and rather childish. Her eyes were closed or half-closed.

For a long time I was scrupulously careful to avoid any suggestion that might increase the separateness of the two personalities. One day, however, when trying to discover their points of resemblance and difference, I proposed to the hypnotized patient to speak of her in the hypnotic state as Amelia and in the waking state as Milly—the name ordinarily used by her friends. Amelia, on being asked what was the difference, if any, between herself and Milly, said she was not very sure, but that she knew more than Milly did, and remembered many things that Milly had forgotten. This seemed especially true of many of the events of her illnesses. Milly, when in good health, had no recollection of her three illnesses. She knew she had been ill, but she did not remember much about it. During the course of these illnesses her memory was of course very defective in many ways, and in each attack one curious loss, which proved very persistent, was observed. She forgot that her second name was Geraldine. Each time when she got well, although she forgot the events of the illness, most of her old memories came back to her; but she still denied for many months that Geraldine was part of her name. Now I found that Amelia knew no more than Milly about Geraldine being her second name.

When I first tried to get Amelia to write automatically through Milly's hand she refused, giving as a reason that she did not wish Milly to see what she wrote. I therefore asked her to write me a letter some time when Milly was asleep. Next day her sister brought me a letter which the patient, when in the second state, had asked her to give to me. It is interesting to notice how readily Amelia adopted the style of an orthodox second personality. The letter begins: "My dear Doctor, She does not know I am writing this"—"she" being, of course, Milly.

Amelia denied all responsibility for most of the morbid symptoms from which Milly suffered, but she confessed to having caused some of them. She said in a letter to me, "I made her hands shake and her legs as well, and I scratched her and made all those nasty places on her hands and legs, and made her fingers close down and her thumbs so that she could not move them. . . . I made her fall downstairs and hurt herself." She said, however, that she had nothing to do with causing the difficulties of speech, reading, and writing, or the bleeding from the eyes and ears, or the hemianæsthesia. Although we must be cautious in accepting these statements, there are some grounds for thinking that they have some foundation in fact. During the course of the patient's illness it seemed evident to me that those more serious disturbances, for the production of which Amelia denied all responsibility, were connected with the functioning of dissociated states of consciousness which were not synthesized within the hypnotic personality; and when I succeeded in removing any of the more obstinate symptoms by suggestion, I generally found it necessary to try to render hypnosis as deep as possible. The nature, or even the existence, of such deeper hypnotic states was not experimentally tested at the time for fear of compromising the therapeutic results, but when the patient was practically well I was able to hypnotize Amelia and so to obtain a new state which assumed the name of Amelia Geraldine—from the fact that in it Amelia remembered her second name. Amelia Geraldine seemed to present a more normal character than Amelia. The childishness of Amelia seemed to disappear and to give place to a more serious and womanly personality.

Both Amelia and Milly claimed to be amnesic of all that transpired when Amelia Geraldine was present; but although this was no doubt true in regard to Milly, it sometimes appeared as if Amelia had some sort of knowledge of Amelia Geraldine. Both Amelia and Amelia Geraldine ascribed the more serious functional disabilities to something beyond or within them. There seemed indeed to be in this case some dissociated states which could not be recovered in hypnosis, dissociated ideas which were outside the mental content of any discoverable personality, dissociated emotions deeply buried in the subconscious which revealed their presence by these bizarre defects of the psycho-physical organism. Amelia, in trying to excuse herself for her participation in the production of Milly's troubles, said, "it is *that awful thing in my head* that makes me do those things to her ; it is dreadful and makes me feel bad, and I must do something to hurt her."

Notwithstanding the beneficial results that had been obtained in this case by the use of suggestion, a stage was reached where it became evident that something more was necessary to restore the patient to normal health. Every attempt at producing complete freedom from all physical manifestations of hysteria was followed by an increase of mental pain and depression. Although it is no uncommon experience to be able by suggestion to remove completely and permanently the disabilities met with in mild cases of hysteria, it is the general opinion of those who have had much to do with graver cases that complete restoration to health is difficult to obtain. Janet, in accordance with his view that hysterical symptoms are the result of a narrowing of the field of consciousness, says that, so long as the field of consciousness remains contracted, we can never add one phenomenon on one side without taking one away from another side. Janet's hysterical has been well compared by Freud to a weak woman who has been shopping, and is now on her way home laden with packages and bundles of every description. She cannot manage the whole lot with her two arms and her ten fingers, and soon she drops one. When she stoops to pick this up, another breaks loose, and so it goes on. This view of the nature of hysteria is hardly in keeping with the observation commonly made that in hysteria exaltation of faculty in some directions is to be found along with diminished powers in others. More in accord, on the whole, with clinical facts is Freud's view that the somatic symptoms of hysteria are due to the conversion of repressed emotions into physical disabilities, and that where adaptation for such conversion does not exist, purely mental symptoms such as phobias and obsessions may appear.

In view of the remarkable findings of Freud and his pupils in regard to the pathogenesis of hysteria, I decided to analyse A. G. P. in the hope that I might be able to achieve the complete restoration to health which suggestion alone seemed unable to effect. For various reasons I adopted, to begin with, the technique used by Freud in his earlier work, making use of the hypnotic state as a means of facilitating the analysis. At a later period this was supplemented by word-association tests in the waking state and other measures.

It soon became evident that the memory of incidents forgotten in the waking state was most readily resuscitated in the state known as Amelia Geraldine (AG). Her memory of such incidents of a pathogenic kind seemed much wider and more accessible than that of Amelia (A). But it was soon found that a still better state for analysis was one which may be called AG_2, produced by hypnotizing AG. When AG first appeared I suggested to her that she should open her eyes, and that she should always " come " with her eyes open. AG_2 had her eyes closed and said she was AG asleep. Thus when Milly (M) was hypnotized, A came with eyes closed. When A was told to sleep, AG appeared after a little time with eyes open. On continuing the hypnotizing process—verbal suggestions of sleep combined with light passes with contact on the face—AG closed her eyes and claimed to be AG_2. On telling AG_2 to awake, she opened her eyes and was AG. On telling AG to awake, she closed her eyes and A appeared. When A was told to awake, she opened her eyes and M appeared. M was amnesic for all the stages. A was amnesic for AG and AG_2. AG remembered what I said to A, but " lost herself " when AG_2 appeared.

From the very beginning A had persistently asserted that she was not responsible for all the things that Milly said and did when asleep. I had assumed that it was A who spoke to her sisters and father in what I have described as the second state ; but in her first letter to me

A had said, " I do not make her talk." For a long time I took no notice of this denial, accounting it merely a ruse on A's part by which she might escape a scolding from me. A, however, maintained very persistently that Milly in her sleep often said and did things for which she (A) was not responsible. These things were ascribed by A to " Milly asleep " (M*a*). But M*a* was a phase of consciousness with which I had no personal dealings, and in which I did not believe until A came to my assistance. She told me that the way to find M*a* was " to put her to sleep—very sound sleep—ever so much deeper than you put me, and then make her open her eyes." The process here described amounted to producing AG_2, or some deeper state and then getting her to open her eyes. After M*a* was discovered, AG_2 appeared only as a transition stage between AG and M*a*, and this latter stage was used in the remaining stages of the analysis.

I find it very difficult to come to any conclusion regarding the interpretation which should be put upon these various phases of the hypnotic state in this case. I believe they were to a large extent artificial products, partly due to direct or indirect suggestion from me, but to a still greater degree to self-suggestion on the part of the patient. It seems to me impossible to disentangle from the whole series of phenomena those which might be due to self-suggestion and those which occurred apparently spontaneously. The different personalities exhibited no very striking differences of character, but, such as they were, these differences were fairly consistently maintained throughout the whole period of investigation. I charged both A and AG to take care of Milly, and to keep her well and free from accidents or injuries. A became a rather fussy guardian of Milly's welfare, and reported her various misdeeds to me with an exaggerated sense of her own importance and rectitude. She was rather proud of her disciplinary methods, which consisted in biting and scratching Milly when the latter did not act in accordance with A's ideas of what was conducive to health. AG, on the other hand, generally spoke "more in sorrow than in anger" of Milly's delinquencies. M*a* was very like Milly awake, but with a greatly extended memory as regards certain experiences which were of hysterogenic significance.

According to Freud, the pathogenic psychic material which has been crowded out of the ordinary consciousness in hysteria may be shown still to exist in an orderly form; and again and again in the course of psycho-analysis undertaken in the waking state, Freud seems struck by the appearance of its being in the possession of a second intelligence. He says: "One receives a delusive impression of a superior intelligence, external to the patient's consciousness, which systematically holds a large psychic material for definite purposes. . . . I presume, however, that this unconscious second intelligence is only apparent."[1] In another place he says: "The pathogenic psychic material appears as the property of an intelligence which is not necessarily inferior to the normal ego. The semblance of a second personality is often most delusively produced."[2]

There are some grounds, I think, for demurring to Freud's view that this semblance is necessarily delusive. It seemed to me that in the case of A. G. P. the induction of hypnosis brought me into touch with a series of personalities who held in their possession a vast amount of psychic material of which the waking consciousness had lost all knowledge, and of a kind which, on Freud's own showing, must be regarded as hysterogenic.

On trying to recover some of the incidents of Milly's past from A, AG, or AG_2, great resistance was very often encountered and little progress was sometimes made for weeks at a time. It was apparently in order to help me over these difficulties that A voluntarily offered to tell me how to find " Milly asleep." " She knows everything," A said, " and she will tell you everything if you do as I say." And A's prognostication was on the whole correct. Resistances were still met with, but in the end all the episodes of which AG_2 could only recover fragments were filled out in detail by M*a*.

---

[1] Freud, *Selected Papers on Hysteria* (English Trans.), p. 90.

[2] *Ibid.*, p. 104.

Concurrently with the revelation of the emotional shocks which had led to disintegration of personality, Milly's health recovered. But I must add that, all through the later period of treatment, as at the beginning, suggestion was employed. After the analysis had reached a certain point the hemianalgesia was again made to disappear by suggestion and no untoward results followed. Very likely from the Freudian point of view the analysis was incomplete, but I had attained my end, and Milly became to all appearance a normal healthy woman. And so she remains.[1] The phases A, AG, and M*a* can still be obtained, but their spontaneous manifestations have, so far as I know, ceased.

---

[1] This has held true up to the present time—May, 1922.

CHAPTER III

MULTIPLE PERSONALITY

THE problem of the splitting of consciousness which occupies such a prominent place in the study of hysteria assumes still greater importance when we come to consider those forms of disintegration which are commonly described under the name of double or multiple personality. The essential feature of this condition is the occurrence in one individual of two or more phases of conscious life, each of which shows the characteristics of personality, yet differs so much from the other in important respects that it seems to be the manifestation of a different personality. Such a description of what constitutes double personality emphasizes the fact that here as elsewhere in nature we can draw no hard-and-fast line between the normal and the abnormal, or between the usual and the unusual. The lapses of memory which are common in everyday life, the changes of mood which accompany changes in the body and its functional activity, the aberrations of conduct to which most men are liable in some degree, are the same in kind as those that are met with in more pronounced form in multiple personality. Continuity of memory is one of the most essential factors in producing the feeling of personal identity which each of us has from day to day, and any gap in the memory chain will tend to produce some alteration, however slight, in the structure of personality. If we cannot remember the events of yesterday, we are not quite the same persons as we should have been if we could remember them, and our conduct will be different in some respects from what it would have been if no loss of memory had occurred. So, if we forget the events of a week, a month, or a year, our personalities will appear constricted to the extent of the forgotten experiences—in so far, at least, as personality is revealed by what enters into consciousness.

But the constriction of personality thus produced need be accompanied by no very obvious change of character. Reactions to all the circumstances of life may still be so consistent with past conduct that no one could suppose that any real change of personality had taken place. On the other hand, some people, without any appreciable disturbance of memory, show phases of conduct at different times which are totally inconsistent with each other; and when such inconsistencies overstep the bounds of what is loosely regarded as the "normal," we may be justified in describing the different phases as instances of double or multiple personality, notwithstanding the continuity of memory which links all the phases together.

Thus, although we find that disturbances of memory form a very prominent feature of almost all recorded cases of multiple personality, we should not perhaps regard them as being essential to the occurrence of this state. But since most of the cases hitherto described have shown more or less pronounced peculiarities in the memory relations of their different phases, this chapter will be devoted to a consideration of some types of multiple personality that may be distinguished on the basis of this relation. The differences of character which the different phases may show, whether these are accompanied by disturbances of memory or not, will be dealt with more particularly in the next chapter.

Well-marked cases of multiple personality are rare, and if we confined ourselves to the study of these cases alone we should make little progress towards an understanding of the strange and seemingly inexplicable phenomena which they present. Fortunately, however, these are not the only ones that occur. When we examine the records we find that a great variety of forms have been observed, and that there are many gradations between the well-marked cases and those which can hardly be looked upon as examples of multiple personality at all. An examination of some of these latter conditions will provide the best introduction to the study of the complex phenomena of double and multiple personality.

It is now very generally admitted by psychologists that in some persons consciousness may become split up into two or more parts. The split-off or dissociated portion may be but a fragment of the whole self, or it may be so extensive, so complex, and so self-sufficient as to be capable of fulfilling all the functions of a personal consciousness. In hysteria we find isolated paralyses or localized anæsthesias which are due to the dissociation of relatively simple ideas, or we may find a splitting so deep, a dissociation of so many kinds of mental activity, that it leads to a complete change of personality.

All ideas, feelings and actions associated in experience tend to become linked together into systems or groups in such a way that the stimulation of one element of a group excites the activity of all the rest. Such a system or group is often referred to as a complex. Now just as dissociation may fall upon a relatively simple idea, such as the use of a limb, so it may fall upon a complex of ideas related to some particular experience. A complex formed in relation to some event accompanied by great emotion may become dissociated from the personal consciousness, so that all recollection of the event and of the feelings and actions connected with it becomes impossible. A complex so dissociated does not cease to be capable of functioning. For the time being it may became latent, but it may occasionally exhibit extremely independent activity. A case recorded by Professor Janet [1] well illustrates the results of the functioning of such dissociated complexes.

> A young girl nursed her dying mother. The poor woman, who had reached the last stage of consumption, lived alone with her daughter in a poor garret. Death came slowly with suffocation, blood vomiting, and all its frightful procession of symptoms. The girl struggled hopelessly against the impossible. She watched her mother during sixty nights, working at her sewing-machine to earn a few pennies necessary to sustain their lives. After the mother's death she tried to revive the corpse, to call the breath back again ; then as she put the limbs upright the body fell to the floor, and it took infinite exertion to lift it up again into the bed. Some time after the funeral the young girl began to fall into somnambulic attacks in which *she acted again all the events that took place at her mother's death, without forgetting the least detail.*

One of the characteristics of these recurrent psychomotor states or somnambulisms, as Janet calls them, is that they repeat themselves indefinitely. Not only are the attacks always exactly alike, repeating the same movements, expressions and words, but in the course of the same attack the same scene may be repeated many times exactly in the same way. The patient acts out some past experience as if in a dream, and during the attack the senses are shut to all impressions not connected with the dream. He perceives nothing except the idea he is possessed of, and he remembers nothing except that one idea. When the attack is over there is a return of all sensations, the lost memories of waking life are restored, and the events of the dream are forgotten. This loss of memory bears not only on the period of the somnambulism ; it bears also on the event that has given birth to the somnambulism, on all the facts that are connected with it, and on the feelings that are related to it. Thus the young girl referred to forgot during her waking state all the events connected with her mother's illness and death. She was callous and insensible, and her filial love, the feeling of affection she had felt for her mother, seemed to have quite vanished.

---

[1] *The Major Symptoms of Hysteria*, p. 29.

Many separate experiences may have taken part in the formation of a dissociated complex, but they are all bound together by some common element of feeling or emotion. When these experiences are reproduced in somnambulic attacks, the various episodes are enacted in succession, though not always in the same order, and the reproduction may or may not be modified by perception and association of ideas. When the reproduction is not modified by external impressions, the attacks are very similar to those already described. But if ability to perceive surrounding objects be retained, the regular development of the somnambulism may be interfered with and modified by the performance of actions determined by the actual situation. In other cases still further modifications may be introduced by association of ideas. When dissociation bears upon any large section of mental life, comprising several complexes, all these complexes combined together may afford material for the determination of a great variety of somnambulic acts. In illustration of this we may refer to the case of an old soldier recorded by Mesnet. This man had received a gun-shot wound in the head and was afterwards subject to attacks of somnambulism in which he gave an exact repetition of events of his life when in hospital. But when a pen was put into his hand during the somnambulic state, he would write letters having reference to other periods of his life. He could hear nothing in this state, but if ideas were suggested to him through the sense of touch, he would perform appropriate actions which were determined by old memories.

In all these cases conduct consists mainly of repetitions of actions appropriate to past events in the patient's history, and it is not relevant to his actual circumstances during the somnambulism. When the dissociation is of such a nature as to permit a just appreciation of the surroundings during the secondary state, and ability to react in an appropriate manner, there is a tendency for the state to be prolonged and to be filled up by a course of conduct in which are displayed the purpose and contingency which we usually regard as characteristic of waking life. Attacks of this kind usually take the form of *fugues* or ambulatory automatisms and are generally described as such; but the change of character which is sometimes exhibited during the secondary state, and the amnesia for the events of the fugue which ensues when the normal state is restored, justify us in regarding them as genuine instances of double personality.

Fugues are of not infrequent occurrence, and many of the cases of loss of memory reported from time to time in the newspapers are undoubtedly of this character. These people have lost for the time being the memory of their real personality. Some system of thoughts which determines their wanderings has become dissociated from the personal consciousness and taken on independent functioning. When it is working itself out in action, the other systems of thoughts relating to the personality, to the former life and its responsibilities, become latent; the whole personality is no longer in control of conduct. When through some chance association or through artificial means the memory of the former existence is restored, the lately active complex becomes latent again, and the events associated with its recent activity are forgotten.

The principal characteristics of a fugue are well brought out in the following case, which I quote from Professor Janet:

> The subject is a boy of 17, Rou., son of a neuropathic mother, rather nervous himself, who already had, when he was 10 years old, tics and contractures in the neck. . . . At 13 he often went to a small public house, visited by old sailors. They

would urge him to drink, and, when he was somewhat flustered, they would fill his imagination with beautiful tales in which deserts, palm trees, lions, camels, and negroes were pictured in a most wonderful and alluring way. The young boy was very much struck by those pictures, particularly as he was half tipsy. However, when his drunkenness was over, the stories seemed to be quite forgotten ; he never spoke of travels, and on the contrary led a very sedentary life, for he had chosen the placid occupation of a grocer's boy, and he only sought to rise in that honourable career.

Now there came on quite unforeseen accidents, almost always on the occasion of some fatigue or a fit of drunkenness. He then felt transformed, forgot to return home and thought no more of his family. . . . I will dwell on only one of his fugues, which is particularly amusing, and was of extraordinary duration, for it lasted three months. He had left Paris about the fifteenth of May, and had walked to the neighbourhood of Melun. This time he was thinking about the means of succeeding in his scheme and of getting safely to the Mediterranean. Until then he had failed, owing to fatigue and misery ; the question was to find means of living as he went along. A bright idea had occurred to him ; not far from Melun, at Moret, there are canals that go more or less straight to the south of France, and in those canals there are ships laden with goods. He succeeded in being accepted as a servant on a ship laden with coal. His work was terrible ; now he had to shovel the coal, now to haul the rope in company with a donkey called Cadet, his only friend. He was badly fed, often beaten, exhausted with fatigue, but, though you would scarcely believe it, he was radiant with happiness. He thought only of one thing—of the joy of drawing nearer to the sea. Unhappily, in Auvergne, the boat stopped, and he was forced to leave it and continue his journey on foot, which was more difficult. In order not to be resourceless, he hired himself out as a helper to an old china mender. They went slowly along, working on the road.

Then, one evening, an unlooked-for event took place again. The day's work had been a success ; the two companions had earned seven francs. The old china mender stopped and said to R., " My boy, we deserve a good supper ; we will keep to-day's feast ; it is the fifteenth of August." On hearing this, the boy heedlessly said : " The fifteenth of August ? Why, it is the feast of the Virgin Mary, the anniversary of my mother's name-day." He had scarcely uttered these words when he appeared to be quite changed. He looked all round him with astonishment, and turning to his companion, said, " But who are you, and what am I doing here with you ? " The poor man was amazed, and was quite unable to make the boy understand the situation ; the latter still believed himself in Paris, and had lost all memory of the three preceding months. They finally had to go to the village Mayor's, where, with great difficulty, the matter was made more or less clear. The Mayor telegraphed to Paris, and the prodigal child was sent back home.[1]

In this case we see something of the way in which fugues may originate. It is exceptional in showing so clearly how the ideas and desires which determined the fugue became implanted in the patient's mind, and how they became dissociated from the waking consciousness under the influence of alcoholic intoxication. As a rule it is not so easy to discover how the determining ideas found an entrance into the mind or how they became dissociated. In some cases they seem to have originated in day-dreaming or in other states of abstraction. Sometimes they appear to be ideas or wishes that have been entertained in the normal state, but have been suppressed as being incompatible with the general character and purposes of the individual.

The termination of this fugue is also instructive. Just as an attack of hysterical somnambulism may be artificially reproduced by insistently directing the patient's attention towards the idea which dominates it, so a fugue may be brought to a close by some chance impression which succeeds in arousing emotional complexes related to the normal life.

It seems impossible to draw any hard and fast line between fugues and some of the classical cases of double personality. On the whole it may be said that the fugue is characterized by a tendency to wander, by a certain unity of purpose which binds the dissociated ideas together, and by the persistence of this purpose as a directive force in determining conduct while the fugue lasts. It is true that in some fugues the working out of this purpose seems vague and obscure, and the wandering may appear quite purposeless to an observer; but it is probable that in every fugue the conduct of the patient is determined by a subconscious desire for some new experience or by aversion from some experience of his ordinary life. There is something in his life from which he feels he must fly, or some anticipated good towards which he must go.

---

[1] Janet, *The Major Symptoms of Hysteria*, pp. 51–53.

In conditions which may more strictly be regarded as cases of double personality, conduct in the secondary state seems to have no such continuity of purpose running through it. Dissociation seems to bear upon a larger section of the self, and the mental activity displayed is of a more varied character. In some respects at least it more clearly resembles the activity of ordinary life and seems less guided by any fixed idea. But we find transitional forms where any such distinction seems to break down. The well-known case of Ansel Bourne[1] may perhaps come under this category.

Ansel Bourne was a carpenter and an itinerant preacher who lived in a small town in the United States. He was 61 years of age at the time of the seizure which led to the appearance of the secondary personality. On January 17th, 1887, he went to a bank in Providence and drew some money to pay for a farm which he had arranged to buy. After transacting some other business he entered a horse-car with the intention of going to his sister's house. But he did not arrive there, and nothing was heard of him until March 14th. On that date a man, who under the name of A. J. Browne had rented a small shop at Norristown, Pennsylvania, woke up in a fright and asked the people of the house what he was doing there. He said his name was not Browne but Ansel Bourne, and the last events of his life that he could recall were his doings at Providence on January 17th. He had no recollection of anything that had happened after he got into the car on that day, and he would not believe that he had been in Norristown for two months. His life at Norristown, of which he had no recollection, was described by his neighbours as being of a quiet and uneventful kind. He had rented a small shop which he stocked with stationery, confectionery, fruit and toys, and had carried on his trade without leading anyone to suppose that he was in an abnormal state of any kind. He was quiet in his behaviour and regular in his habits. Only once during his life as Browne did any memory from his former life emerge. This occurred at a prayer meeting where he related an incident which he had witnessed some years previously. After coming to himself on March 14th he was taken home by his friends and resumed his former life.

---

[1] William James, *Principles of Psychology*, Vol. I., p. 391.

His neighbours at Norristown could give an account of his life from February 1st to March 14th, but neither they nor he could give any information of his doings from January 17th when he disappeared in Providence to the time he arrived in Norristown. This part of his history was not recovered until three years later, when he was hypnotized by Professor William James. During the hypnotic state he gave a detailed account of his wanderings during the first fortnight of his secondary state. Before settling down at Norristown he had travelled to Boston, New York, Philadelphia, and other places.

Thus we see that in the first fortnight of his secondary state, Ansel Bourne's conduct conformed to that of an ordinary fugue. He forgot his personal identity, assumed a new name, and wandered about from city to city. In the remaining six weeks he led a quiet respectable life as a small shopkeeper. In his second state he had no recollection of his former life, and when he came to himself he had no recollection of his life during the second state. The lost memories were, however, recovered during hypnosis, and the revelation so obtained of his frame of mind at the beginning of his fugue probably indicates the nature of the ideas that determined it. He said " he wanted to get away somewhere—he didn't know where—and have rest." When he opened his little shop the fugue proper came to an end. The idea which determined his flight was about to be realized, and while it was working itself out he lived the life of a secondary personality which was conditioned by the breach in the continuity of his memory, rather than by any great change in his character or conduct.

So far we have considered disintegrations of personality in which the dissociated elements comprise only a small portion of the mental life. A single idea or a group of ideas bound together into a complex by some common underlying feeling, becomes split off more or less completely from the personal consciousness. According to Janet when such a dissociated complex is aroused to function it displays great independence and takes possession of the whole organism. A new state is entered upon, a new personality appears whose actions are initiated and guided by the dominating complex.

I have elsewhere [1] referred to the difficulties inherent in Janet's conception of dissociation, in so far as he seems to regard the split-off portion of consciousness as existing independently in isolation from the rest of the mind. When, in speaking of the dissociated systems of ideas which give rise to monoideic somnambulisms, he says: [2] "in healthy minds these systems pertaining to each idea are connected with an infinitely wider system of which they are only a part—the system of our entire consciousness, of our entire individuality"—it would seem that by consciousness he means the whole mind, the whole personality. So, therefore, when an idea becomes dissociated, he would seem to imply that it continues to exist in a wholly isolated state and, whether conscious or unconscious, does not belong to any self. But it cannot be too often repeated and insisted on that we have absolutely no knowledge of any such isolated mental material. If normally an experience that passes out of consciousness is conserved as a psychical disposition, it is as a psychical disposition which is part of *some* personality. If it is not dissociated it remains part of the normal personality and retains the privilege of being able to reappear above the normal threshold. But if its passage out of consciousness is accompanied by dissociation, it may continue to exist as an unconscious psychical disposition or as a co-conscious experience, and forms an integral part of some personality which may or may not be wider than that which manifests in waking life. Its dissociated status has reference to the supraliminal consciousness and to that alone. It is not cut off on all sides from the structure of the mind, but only deprived of those associative connexions which would permit its emergence above the threshold. It is dissociated from the supraliminal consciousness but is still an integral part of the mind beneath the threshold. We cannot believe that abrogation of supraliminal awareness necessarily entails either the annihilation or the complete isolation of the dissociated mental complex. It must somehow still form part of the structure of the mind. Did it not do so, it could never take possession of the bodily organism so as to manifest as a secondary personality, no matter how great its development might be.

---

[1] *The Psychology of Medicine*, p. 33.

[2] Janet. *The Major Symptoms of Hysteria*, p. 42.

When we speak of an idea or a complex of ideas growing and developing and taking possession of the body we must be held to be speaking figuratively. The new personality which appears has of course many other ideas at its command besides that which dominates it; and it has these in virtue of the fact that the dissociated idea has not been severed from its connexions with the whole of the rest of the mind, although for some reason it is disqualified from entering into the mental syntheses of waking life. Just as we speak of a man being possessed by an idea, so we may speak of an idea developing to such an extent that it arouses a new personality. In both cases the mind is so concentrated on the idea that it acts almost exclusively with reference to it. If the idea remains above the threshold we get the " possession by an idea " which is hardly considered abnormal. If an idea that has become dissociated attains such potency that it bursts its barriers, re-enters consciousness, and dominates the whole of conduct, it leads to the appearance of a secondary personality. In order to develop such potency the dissociated material must have a certain amount of unity of structure and be accompanied by an affect of a certain intensity.

The section of mental life cut off by dissociation may be relatively so small that its disappearance does not appreciably affect the integrity of the personal consciousness, so that both before and after the somnambulistic attack the individual is regarded as being his normal self. But it is possible for the dissociation to bear upon such a large section of consciousness that the constriction of the self which its withdrawal entails may amount to a change of personality. And the dissociated portions of consciousness may lack the community and intensity of feeling or of purpose which would enable them to take possession of the bodily organism on their own account. Dissociation is revealed by gaps or disabilities in the normal self, rather than by the appearance of any new form of activity simulating a second self. But if the dissociated portions of consciousness should suddenly become reinstated so as to lead to the formation once more of the normal personality, and if again they should gradually or suddenly drop out of consciousness so as again to leave the normal self crippled and constricted by their disappearance, we should have an alternation of two selves, whose relation to each other might not readily be recognized. Some of the best known of the recorded examples of double personality are to be explained in this way, and the misinterpretation of such cases has given unwarrantable support to the view that a secondary self is sometimes an improvement on the primary personality. Such a view may or may not be true; but these cases cannot be adduced in support of it.

The classical example of this form of double personality is the case of Félida X.,[1] recorded by Azam.

Félida X. was born at Bordeaux in 1843. When about 13 years of age she began to exhibit symptoms of hysteria, and Azam was called in to attend her. In her ordinary everyday state he found her to be an intelligent and fairly well educated girl of a melancholy disposition, quiet and industrious. She suffered from many hysterical symptoms such as acute pains in various parts of the body and diffuse areas of insensibility. Very frequently, however, she had sudden attacks of profound sleep which came on spontaneously and lasted for a few minutes. From these she would awake free from all her troubles, and completely altered in her character. Instead of being melancholy and timid she was now gay and smiling, and behaved in every way like a perfectly healthy girl. At first this period of good health lasted only for an hour or two, at the end of which she would have another attack of sleep, from which she awoke in the old phase of depression and ill-health.

---

[1] Binet, *Les Altérations de la Personnalité*, pp. 6–20.

In the phase of melancholy and ill-health (which Azam called the primary state) Félida could remember the events of her life during previous primary states, but had no recollection of anything that had happened during her secondary state—the phase of gaiety and good health. On the other hand, in the secondary state she could recollect all the events of her life—both those of previous secondary states and also those of the primary states.

These alternations continued for many years, but as time went on the secondary (healthy) state, which at first occupied only a small part of her existence, became her permanent state ; and the primary (hysterical) phase appeared at longer and longer intervals, and when it did appear it lasted for only a short time.

The condition which Azam described as Félida's primary state was undoubtedly the constricted self produced by hysterical dissociation ; and the condition which he described as secondary was really the normal self restored by the synthesis of the dissociated states. But the real secondary personality in this case was, in fact, the hysterical condition which had come on so gradually that no distinct gap in the continuity of memory was observed. When the two phases began to alternate, the constricted self became amnesic for the restored self, while the restored self had no amnesia for the hysterical phase. There is in cases of the Félida type no reciprocal amnesia such as is observed in the cases we have previously examined.

Félida's alternations occurred spontaneously and for a long time they were misinterpreted. It was only when it was discovered that similar phenomena could be artificially produced that the status of the two phases and the mechanism of their alternation became apparent. Janet's prolonged researches on Marcelline R.[1]—an artificial Félida, as he has termed her—afford us the clearest notion of the way in which double personalities of this kind come into being; but we do not seem justified in adopting Janet's view that this is the type to which all forms of multiple personality must in the last analysis be held to conform.

Marcelline R. was 20 years of age when she first came under the care of Jules Janet. From the age of 13 she had been subject to many troublesome hysterical symptoms, one of which, hysterical vomiting, became so serious that her life was endangered. On being hypnotized by M. Janet she immediately passed into a state in which all her hysterical symptoms disappeared, and in which she could eat without any ill-effects. When she was awakened from the hypnotic state all the old troubles reappeared. To get over the inconvenience of having to hypnotize her before each meal, Janet determined to leave her in the hypnotic state for days at a time. So long as she was in the state brought about by hypnotism she appeared to be quite well in every way, and her parents, finding her in this state one day, considered her cured and took her out of the hospital. She kept well for a short time, but after a few weeks she "awoke" spontaneously into her former state of depression with all its accompanying disabilities. To add to her troubles she had no recollection of any of the events which had occurred since she had been hypnotized. She was brought back to the hospital and was again hypnotized.

Things continued in this way for fifteen years. During the greater part of that time Marcelline was under the care of Professor Pierre Janet, who describes the state of affairs as follows: "Marcelline would come to me in order to be put to sleep; enter into her alert state and then go away very happy, with complete activity, sensibility and memory. She would remain thus for a few weeks; then, either slowly or suddenly, in consequence of some emotion, fall back into her numbness, return to the state we had considered primitive and natural, with the same visceral disturbances. The forgetfulness now extended over whole years, and disturbed her existence completely. She would hasten to come to me to get herself transformed again. Things continued thus for years together, till the death of the poor girl, who succumbed to pulmonary tuberculosis."

---

[1] *Revue Philosophique:* Avril, 1910, p. 329; Mai, 1910, p. 483.

The main difference between the case of Marcelline and that of Félida is that the alert healthy phase occurred in Félida spontaneously, whilst it had always to be artificially brought about in Marcelline. In other respects the two cases are of exactly the same type.

In cases of the Félida type I have supposed that the split-off section of consciousness has not the structural unity which would permit it to manifest as a secondary personality, and that the two selves which are exhibited are merely the normal self and the same self shorn of some of its faculties or powers. But it is possible for a split-off section of consciousness, even when dissociation is extensive, to have so much structural unity that it is capable of utilizing the whole bodily organism for its expression, and of showing all the features of a second self. We may thus have the constricted primary self alternating with a self formed by the split-off portion, and a hypothetical third self, the normal self, which will appear if a synthesis of the dissociated states can be effected.

The best example of this type of double personality is to be found in Dr. Morton Prince's record of the history of Miss Beauchamp.[1] This case is so well known, and so much has been written about it, that it is unnecessary to give here anything but the barest outline of its chief features.

In 1893 Miss Beauchamp, then 18 years of age, suffered an emotional shock which produced a splitting of consciousness. The constricted personality which resulted from the dissociation seemed to develop gradually as was the case with Félida X. and

---

[1] Morton Prince, *The Dissociation of a Personality* (New York, 1906).

Marcelline R.; but once established it persisted for six years. It was during this phase of her life that Miss Beauchamp first came under Dr. Prince's observation, and it was to this phase that he gave the designation B_1. In 1896, as a consequence of another emotional shock, another personality, known in the records as B_4, appeared suddenly. B_4 did not on this occasion remain long in evidence, but henceforth she frequently appeared as an alternating personality. According to Dr. Prince's interpretation B_4 represented the part of Miss Beauchamp's personality that became dissociated in 1893; and he has shown how by a synthesis of B_1 and B_4 he succeeded in reconstructing the original Miss Beauchamp.

The most important points in regard to the memory relations of these three personalities—Miss B, B_1, and B_4, may be summarized as follows. B_1 was the original self constricted by the dissociation of a portion of consciousness which six years afterwards reappeared as another personality, B_4. B_1's memory was continuous for her whole waking life up to the appearance of B_4. B_4's memory was continuous and coextensive with B_1's up to the time of the dissociation, but B_4 had no knowledge of the six years of B_1's existence. When B_1 and B_4 began to alternate, there was reciprocal amnesia; B_1 knew nothing of B_4 and B_4 knew nothing of B_1. When the real Miss Beauchamp was reconstructed she had memory for the whole lives of B_1 and B_4. She was a third self formed by the synthesis of two dissociated states, each of which was a portion of the original self. (*See* diagrams on Plate I., p. 237.)

At an early period of his treatment of Miss Beauchamp Dr. Prince made use of hypnotism, and some of the peculiarities of the case and much of its interest is directly due to this fact. When B_1 was hypnotized a state was obtained which showed the ordinary features of deep hypnosis. This state came to be known as B_{1a}. B_1 was amnesic for B_{1a}, while B_{1a} had complete memory of all that B_1 did and knew. In character B_{1a} was not distinguishable from B_1. One day, however, an apparently deeper hypnotic state was obtained. This state, known as B_3 or Sally, knew all about B_1 and B_{1a}, but maintained that she herself was a different personality altogether. She certainly showed a very different character, and neither B_1 nor B_{1a}, nor B_4, had any direct knowledge of what she said or did. Not only did Sally claim to possess knowledge of all that B_1 and B_{1a} knew, of all that they said and did when they were present as alternating personalities, but she maintained that she persisted as a co-conscious personality both during B_1's ordinary life and during the hypnotic phase B_{1a}. When B_4

appeared on the scene Sally claimed a similar co-consciousness with her.

What the nature of such a personality may be will be discussed presently. In the meantime we must examine some other examples of double personalities produced by a splitting or constriction of the self where co-consciousness is neither claimed nor observed.

We have seen that a new personality may appear owing to a constriction of the self by the dissociation of a larger or smaller section of consciousness. The amount of constriction which the self may suffer in this way varies enormously. In the slighter dissociations of hysteria the split-off portion may comprise nothing more than some groups of sensations or movements whose disappearance does not noticeably affect the structure of personality. In more severe cases the split-off material is of greater extent and its secession gives rise to the appearance of a new personality. If, as sometimes happens, the dissociated portion becomes suddenly restored to consciousness, the normal personality reappears. And these two phases of conscious life—the normal self and the constricted self—may alternate one with another over long periods of time. Sometimes, however, the split-off portion of consciousness may have so much unity of structure that when alternation occurs the constricted self gets wholly displaced by the dissociated portion instead of absorbing it to form the normal self. When such an alternation in mass of dissociated mental material takes place we have the appearance of a new personality which is as fragmentary or incomplete as that which it has displaced. Only by the synthesis of these two secondary selves can the normal self be obtained.

Sometimes, however, the stress which causes the initial dissociation is so severe that everything that goes to the formation of a personal consciousness disappears, leaving seemingly nothing but a bare consciousness, almost without any content, to play the part of a secondary personality. There are several cases on record in which the disintegrating shock was so severe that the mental state to which the patient was reduced is said to have resembled that of a new-born child. It might be supposed that if such a state should come to alternate with the full normal personality which had been displaced, the second state would on each occasion show the absence of mental content observed on its first appearance. Such a state of affairs is however practically unknown, because although the secondary personality in these cases seems on its first appearance to be almost devoid of mental content it acquires knowledge with extraordinary rapidity. On each occasion of its reappearance as an alternating personality it is found to have grown to the extent of its experience on former occasions, and so in time it may show all the proper characteristics of a secondary personality—different knowledge, different memories, different emotions and different conduct.

One of the best examples of double personality of this kind is afforded by the history of Mr. Hanna, which has been recorded by Dr. Boris Sidis.[1]

> The Rev. Thomas Hanna was a healthy and very able man 25 years of age. On April 15th, 1897, he fell from a carriage and was picked up in a state of unconsciousness, which lasted for two hours. His condition when consciousness returned is thus described by Dr. Sidis : " When the patient came to himself he was like one just born. He lost all knowledge acquired by him from the date of his birth up to the time of the accident. He lost all power of voluntary activity, knew nothing of his own personality, and could not recognize persons or objects. He had, in fact, no idea whatever of an external world. Objects, distance, time, did not exist for him. Movements alone attracted his involuntary attention, and these he liked to have repeated. Nothing remained of his past life, not even a meaningless word, syllable, or articulate sound. He was totally deprived of speech. He had lost all com-

---

[1] Sidis and Goodhart, *Multiple Personality* (New York, 1905).

prehension of language. He did not know, could not recognize anything from his former life. No object, no person, however intimate and near, awakened in him even the vaguest sense of familiarity."

All knowledge of his former life, all his acquisitions and memories, even acquaintance with the meaning of the organic sensations of his own body had completely disappeared. But he was capable of learning and at the end of a few weeks he had learnt much. In doing so he developed a new personality which had no knowledge of his former self. But the old memories were not destroyed, they were only dissociated, and in the course of the treatment adopted by Dr. Sidis the old self began to alternate with the new self, and finally the two selves became united and Mr. Hanna was cured.

The new self which in this case alternated with the old self has a somewhat different status from that of the other secondary personalities which I have described. It differs from the secondary self of the Félida type in that the old self, the normal self, did not know it or remember it. It differs from both of the selves in the B_1, B_4 type in that it had never formed part of the original self as each of them had done. B_1 and B_4 had certain memories in common. They both remembered the events of Miss Beauchamp's life up to the time of the emotional shock which led to the disintegration in 1893. But all the memories of the second self of Mr. Hanna were memories of its own experiences subsequent to the accident; and the new self was not only ignorant of the old self's experiences as an alternating personality, but also of all events of Mr. Hanna's life from the time of his birth.

The new self here was indeed a new self in a more literal sense than in any of the other cases, and could it have been suppressed at an early stage instead of having been encouraged to grow there might never have been a Hanna case of double personality at all. The old self, if it could have come, or if by any means it could have been brought back, before the new self had developed a mental content, would have been the complete and normal Mr. Hanna entering into his own without any rival claimant; but by the time the old self did reappear the new self had grown to such proportions that a struggle ensued as to which should remain in permanent possession. Then it was found that the only way to ensure the stability and permanence of the old self—the real Mr. Hanna—was to get it to synthesize with the new self, thus producing what may be looked upon as a third self which knew both the others.

This third self was however different in some respects from the normal self which emerges as a third self from the synthesis of two selves which are each but fragments of an original whole self. The synthesis of the two selves here was not necessary in order to make a normal whole personality as was the case with B_1 and B_4. If the new self could have been effectually and permanently suppressed, Mr. Hanna would still have been reckoned a normal person; but so long as B_1 or B_4 was suppressed the manifesting personality was necessarily and demonstrably abnormal.

It would thus seem that in some circumstances the severity of the disintegrating stress may lead to a doubling of personality which differs from the more ordinary forms where each self is from the beginning a part of the original self. And we may note that another departure from the more common type may occasionally be met with as a result of repeated disintegrations consequent upon a succession of psychical injuries in peculiarly susceptible persons. The disintegrative process may take the form of a series of dissociations, so that instead of two selves, either of which might be mistaken for a more or less normal self—so many of the characteristics of selfhood do they retain—we may get a large number of incomplete selves, some of which are so abortive as hardly to warrant the designation of selves at all. The multiple personalities of Louis Vivé [1] and of Mary Barnes [2] seem to belong to this category.

The history of Louis Vivé's changes of personality is very complicated. He was born at Paris in 1863. As a child he was neglected, and at the age of 10 years he was sent to a reformatory, where he was well taught and put to work in the fields and vineyards. When 14 years of age he got a severe fright through grasping a snake in a bundle of twigs which he had picked up. This threw him into a series of violent convulsive attacks which left him paralysed in his legs, and he was sent to an asylum. His character seemed changed and he was reported as being amiable and straightforward. He spoke with shame of his former mode of life in which he was a thief and had a violent temper. He was taught tailoring and worked steadily for two months. Then suddenly he had a violent hystero-epileptic attack which lasted for fifty hours and was followed by a sleep from which he woke up free from paralysis and with no recollection of any part of his life subsequent to the fright by the snake. His character had also undergone a complete transformation. He was violent, greedy and quarrelsome, and all his tastes were changed. He had lost all knowledge of his life and acquisitions as a tailor. He stole some money and escaped from the asylum.

After some years of vagabond life, during which he was several times an inmate of hospitals or asylums, he enlisted as a private of Marines at Rochefort in 1885. He was convicted of theft and, being considered of unsound mind, was received into Rochefort Asylum, where he came under the observation of Doctors Bourru and Burot. These physicians were at that time investigating the therapeutic actions of metals and magnets, and in the course of their experiments on Louis Vivé they brought about several phases of personality in which his memories, his physical states, and his character showed great differences. Thus, for example, on applying a piece of steel to the right arm they found that the right hemiplegia and hemanæsthesia from which Louis Vivé was at the time suffering, were wholly transferred to the left side. At the same time his character and his memories became completely changed.

At least six different phases of personality were obtained by similar procedures—procedures whose efficacy we now ascribe to suggestion—and it seemed as if this bringing back of the defects, or absence of defects, of sensation and movement which had been characteristic of previous phases of his life, brought back also the modifications of character which had accompanied them. Or to put it in another way: when one of the secondary personalities was aroused by suggestion, the physiological peculiarities of that personality, such as loss of sensation or movement, also reappeared. It is noteworthy, however, that in some of the phases in which the memories seemed apparently identical, the character was totally different.

---

[1] *See* Myers, *Human Personality*, Vol. I., p. 338.

[2] *Proceedings S.P.R.*, Vol. XVIII., p. 352.

The disintegration into a great number of incomplete personalities was carried still further in the case of Mary Barnes[1] which has been recorded by Dr. Albert Wilson.

Ten abnormal states occurred in this case, and Dr. Wilson considered each of them to be "a separate personality, continuous with itself throughout its different appearances, and originally ignorant of every other."

In his description of the case Dr. Wilson calls the normal state A and the abnormal state B. The different abnormal phases are referred to as B_1, B_2, B_3 and so on. B_1 was a condition of acute mania. B_2 was a childlike state. B_3 was a phase which the parents named "Old Nick," because she was very passionate and bit her clothing. B_4 was a deaf-mute: B_5, which appeared only once, had attacks of paralysis in the legs and deaf-mutism, and had no memory for anything which had occurred more than three days before. B_6 had the character of a sweet amiable child. B_7 could not stand or walk. B_8 was very like B_5 but with different memories. B_{10} was a blind imbecile who could draw well notwithstanding the blindness.

The normal state A, which appeared for short periods as an alternating personality, was totally ignorant of all the B stages, but the abnormal states sometimes showed a glimmer of knowledge of the normal A. B_6 appeared for the first time about a year after the illness began, and after this the normal personality A "became a very rare visitor, putting in an appearance perhaps only once a week, while B_6 became more permanent, until finally, after two years, it remained constant and all other personalities disappeared."

---

[1] *Proceedings S.P.R.*, Vol. XVIII., p. 352.

These two cases—those of Louis Vivé and Mary Barnes—are extreme instances of multiple personality due to a splitting up of a hitherto more or less integrated self, but however many of these personalities appear in any particular case, so long as they are but split-off fragments of the original self, restoration of the normal personality by a redintegration and synthesis of the dissociated parts is always hypothetically possible.

We have thus constructed a series of dissociations of consciousness, ranging from the split-off ideas of hysterical somnambulisms to the most extreme forms of multiple personality, and we have found the mechanism of dissociation and the resulting phenomena to be of the same general type throughout the whole of the series. A portion of the self becomes split off and excluded from the experience of the remaining consciousness. The split-off portion remains, for the most part, latent ; but when by any means it is aroused, it displays extremely independent functioning. When it is sufficiently unified to be able to take possession of the bodily organism it manifests as a somnambulism, a fugue, or a secondary personality ; it alternates with the normal consciousness, or rather with what is left of the normal consciousness ; the experience of the two states is discontinuous, and their memories are mutually exclusive. Have we then exhausted the possibilities of dissociations of consciousness ? Can we find a place in this series for every form of multiple personality ?

In speaking of the Beauchamp case, I said that the real Miss Beauchamp was reconstructed by the synthesis of B_1 and B_4. But what about Sally ? There is hardly a vestige of Sally in the restored Miss Beauchamp. When the real Miss Beauchamp was found, Sally went, as she herself said, back to where she came from, and it is there that we must look for her, if we can find out where it is.

Since we are not here considering the differences of character which the various selves of multiple personalities may present, we may disregard for the present the character of Sally and confine our attention to one special feature in which she differs from all the other cases referred to so far. This feature is that Sally not only alternated with B_1 and B_4, but also existed as a co-conscious personality when B_1 or B_4 was present as an alternating personality. Thus when B_1 was present as an alternating personality, Sally co-consciously knew B_1's experiences—her feelings, thoughts, and actions—and knew them as belonging to B_1.

But she also claimed to have at the same time concomitant experiences of her own. And when she appeared as an alternating personality, she remembered not only B_1's experiences, but also her own co-conscious experiences. She claimed to exist continuously as an independent personality throughout all the various phases of Miss Beauchamp's life. A consciousness like this seems something quite different from any of the forms of multiple personality we have examined, and if we find other examples of a similar kind, we must conclude that we have here a new type of secondary self which cannot be fitted into the series of dissociations which we have constructed.

The simplest examples of two separate streams of thought co-existing in the same individual are to be found in certain hypnotic experiments, such as those referred to in Chapter I. The only satisfactory explanation of the fulfilment of a post-hypnotic suggestion at a time that the waking consciousness is fully occupied with other matters is to suppose that some sort of co-conscious intelligence is at the same time attending to the fulfilment of the suggestion. When the performance of the suggested act necessitates some definite mental process, such as making an elaborate calculation, the evidence for the existence of two simultaneously acting streams of thought is still better. Although we are not bound to suppose that when waking life is resumed the hypnotic consciousness ordinarily persists as anything worthy of being called a second self, yet the phenomena observable in trained hypnotic subjects do point to something of this kind in these cases. Indeed, it can be shown that a true secondary personality which is demonstrably co-conscious with the waking self, may be artificially produced or may develop spontaneously during hypnosis. A good example of this may be found in Janet's account of his experiments with his subject Lucie.

Lucie was one of the four principal subjects in whom Janet observed the majority of the facts recorded by him in his work, *L'Automatisme Psychologique*.

She was a pronounced hysteric whom he treated by hypnotic suggestion. In the ordinary waking state (hysterical) she is designated Lucie I. The hypnotic state first obtained—a deep state followed by amnesia—is called Lucie II. At the fifth hypnotization a deeper state, Lucie III, was obtained, of which neither Lucie I nor Lucie II had direct knowledge.

Janet suggested to Lucie III that she should write answers to all questions of his after her awakening. The following "conversation" between Lucie III and Professor Janet took place while Lucie I was awake and talking to other people. I quote from the summary of this case given by F. W. H. Myers in *Human Personality*. "Do you hear me ?" asked Professor Janet. Answer (by writing) "No." "But in order to answer one must hear ?" "Certainly." "Then how do you manage it ?" "I don't know." "There must be somebody who hears me ?" "Yes." "Who is it ?" "Not Lucie." "Oh, some one else ? Shall we call her Blanche ?" "Yes, Blanche." "Well then, Blanche, do you hear me ?" "Yes."[1]

This name, however, had to be changed for the following reason : the name Blanche happened to have very disagreeable associations in Lucie's mind ; and when Lucie was shown the paper with the name Blanche, which she had unconsciously written, she was angry, and wanted to tear it up. Another name had to be chosen. "What name will you have ?" "No name." "You must, it will be more convenient." "Well then, Adrienne." Never, perhaps, says Myers, has a personality had less spontaneity about it.

---

[1] *See* Myers, *Human Personality*, Vol. I., p. 328.

Perhaps the best recorded examples of this hypnotic type of multiple personality are the Léontine and Léonore personalities which Janet discovered on hypnotizing his subject Léonie (Madame B.).[1] Here, as in the case of Lucie, two hypnotic states—Léonie II (Léontine) and Léonie III (Léonore)—were obtained.

> Léonie in her normal state was a poor peasant woman of a serious and somewhat melancholy disposition. She was calm, slow, very gentle, and timid. She knew nothing of Léontine or of Léonore. Léontine was gay, noisy, and restless. She knew Léonie, that is to say she had no loss of recollection of the life of the waking state, but she denied that she was the same person as Léonie. "That good woman is not I," she said, "she is too stupid." Léonore knew and remembered the life of Léonie and also that of Léontine whom she condemned as noisy and frivolous.

In this case we see clearly marked the memory relations which are characteristic of hypnotic personalities. Léonie knew nothing of Léontine or of Léonore. Léontine was co-conscious with Léonie and knew her life, but did not know Léonore. Léonore was co-conscious with and knew the lives of both Léonie and Léontine. (See diagrams. Plate II, p. 238.) In Janet's description of the origin of Adrienne (Lucie III) we see the very beginning of such a personality taking form under the hands of the experimenter. In Léontine and Léonore, he seemed to encounter two personalities already fully formed, each having definite characteristics and in some respects different memories.

I have been able on several occasions to obtain similar stages of memory in suitable hypnotic subjects, but only very rarely have the different stages displayed any distinct differences in character. My experience is that if the experimenter maintains the same attitude towards the subject in each stage, if he speaks in the same tone and about the same topics, the stages do not in respect of character show any distinguishing peculiarities. But if the experimenter adopts a more familiar or frivolous attitude towards one stage and a more reserved or serious attitude towards another, the change of attitude in the experimenter is responded to by the subject, and each stage when it is subsequently induced exhibits respectively the levity or seriousness which was indirectly suggested by the experimenter on their first appearance. And although the characters of Léontine and Léonore seemed to exist "ready-made," when Janet first discovered them, it must be remembered that Léonie had frequently been hypnotized by different physicians many years before she came under Janet's observation. It seems probable that the differences of character exhibited in the three stages, although no doubt expressions of tendencies potential in Léonie's original nature, may have had in their development some outside encouragement of the kind I have suggested.

---

[1] *See* Myers, *Human Personality*, Vol. I., pp. 322–330.

Nevertheless, we do sometimes find secondary personalities of this kind, which seem to exist, in an incipient form at least, where no possibility of their artificial origin can be entertained. In my own case of Milly P. (see Chap. II.), the patient had not been previously hypnotized by anyone, yet I seemed to discover a hypnotic personality, claiming to be co-conscious, whose character differed in some respects from that of the waking personality. But I confess that the extraordinary rapidity with which "Amelia" developed self-consciousness and initiative after I had given her a name, tends to make me suspect the genuineness of the spontaneous formation of any co-conscious personality that may appear in the course of hypnotic experiment or treatment.

There are, however, several recorded cases which seem to indicate that a co-conscious personality may arise spontaneously, or that it may develop from some split-off fragment of consciousness acting as a nucleus around which subconscious experiences during normal life, or experiences during spontaneous states of mental dissociation, may accrete. The most notorious example of this kind is the B_3 personality (Sally) of the Beauchamp case.

Whatever our final view of Sally's personality may be, we must not minimize or forget the resemblances between Sally and the other co-conscious personalities already referred to. One feature in particular which is common to them all is that it seems unnecessary for them to be synthesized with the waking consciousness in order to form the "normal" personality. These co-conscious states do not as a rule seem ever to have participated in the structure of the waking self, and no synthesis of them with the waking self seems necessary in the interests of mental health. This is certainly true of the co-conscious personalities developed by hypnotism. And even if the nucleus of Sally Beauchamp's individuality had been derived from split-off elements of the primary personality, her growth and development must have taken place in the subconscious. So that as a fully formed personality, Sally was never a part of the original Miss Beauchamp in the sense that B_1 or B_4 was; and when the reconstruction of the disintegrated self was to be brought about, there was no room for Sally except "where she came from."

Are we to conceive of her as being still there as an imprisoned and impotent co-consciousness, or may we suppose that in Miss Beauchamp's reconstruction those very elements from which Sally evolved have become redintegrated in the complete Miss Beauchamp, and that by the withdrawal of these elements from the subconscious Sally's personality has become for the time being totally disintegrated? There is not much evidence in Dr. Prince's book that anything of this kind took place, but writing at a later date, he says:[1] "In Miss Beauchamp as a whole, normal, without disintegration, it was easy to recognize all three dispositions as 'sides of her character,' though each was kept ordinarily within proper bounds by the correcting influence of the others. It was only necessary to put her in an environment which encouraged one or the other side, to associate her with people who strongly suggested one or the other of her own characteristics, whether religious, social, pleasure-loving or intellectual, to see the characteristics of B_1, Sally or B_4 stand out in relief as the predominant personality."

---

[1] *Journal of Abnormal Psychology*, Vol. III., No. 4, p. 287.

It is hard to say just how much or how little, if any, of the original self may be necessary to form a nucleus around which a co-conscious personality may grow, or what kind and extent of dissociation may be sufficient to afford the requisite mental material. Every normal self is an ideal construction, and in its formation much has to be cast aside as being useless or unsuitable. A secondary self that arises as a parasitic growth around a nucleus of cast-off mental dispositions may be more excellent in some respects than the primary self. Yet it may be not only unsuited for the practical purposes of life, but even positively detrimental to their realization. It may indeed be so incompatible with the practical self which has to adjust itself to its environment at all costs, that any real synthesis of the two selves is impossible. We need not be surprised that in the reconstruction of the real Miss Beauchamp there was no room for Sally. Sally may, indeed, appear to be a stronger and more interesting personality than either B_1 or B_4, but her status is different. She is no integral part of the Miss Beauchamp who, for years before the final disintegrating shock, had been endeavouring to construct a self that would be best suited to the practical purposes of life. She represents rather a phase of Miss Beauchamp's nature that had long been subject to repression as being incompatible with the system of purposes on which the construction of her true self essentially depended.

In tracing the development of co-conscious processes from the doubling of the stream of thought in hypnotic experiments up to the co-conscious life of such a personality as Sally Beauchamp, we seem to have constructed another series of dissociations whose differentia is this very fact of co-conscious activity. I do not wish to suggest that in practice we can draw a sharp line between these two kinds of dissociation or that mixed forms may not be met with, but there are certain features peculiar to each which seem to justify us in regarding them as separate types. In the first series the split-off portions of the self seem to remain latent until the attack or alternation occurs. During their periods of latency they seem cut off from all experience, and do not grow or develop in any way. There is a division of the self without any true doubling of consciousness. In the second series the dissociated portion of consciousness may never have formed a part of the waking self, and consequently cannot properly be described as a split-off part of the mind. When it is not in evidence as an alternating personality, it is not latent; it is co-conscious, and may have experience and grow and develop in the subconscious. There is a doubling of consciousness without any true division of the normal self.

A co-consciousness, whether associated with hysteria or not, usually, if not always, manifests only in cases that have been subjected to hypnotic or other artificial procedures, and we may regard it as being essentially of the same nature as other hypnotic phenomena, without thereby implying that these procedures have produced it. Split-off portions of the self may indeed sometimes exhibit proof of their co-conscious existence, but it is very rare to have any manifestation of such co-consciousness unless some artificial means are taken to elicit it. It may seem unjustifiable to class Sally Beauchamp with ordinary hypnotic phenomena. And so it may be, for Sally has been a puzzle to many of her commentators. But one cannot help feeling that if B_1 had never been hypnotized, Sally would never have been " born."

Were it not for our knowledge of the possibility of the co-existence in one individual of two independent streams of thought as revealed by hypnotic experiments, we might be inclined to think that the claim of a secondary personality to continuous co-conscious activity is an illusion. But when we survey all the evidence for the existence of co-conscious states there seems no good reason why we should deny the claim of such a personality as Sally Beauchamp.

There is, however, one case on record which seems greatly to increase the difficulty of forming any conception of the relations which obtain between the various personalities when co-consciousnesss is claimed by one or more of them. Dr. Prince has published the autobiography of a personality who describes with great fulness and care her own origin by dissociation from an originally integrated personality C, and her development into a secondary personality B, who claimed to be conscious with another personality A, formed by the secession of B from C.[1]

The records of this very interesting case are given by the patient herself. The first part of the record is written by C after complete redintegration of the whole personality had been effected. The second part of the record is an account by B, who describes her development and experiences, both as an alternating and as a co-conscious personality. In writing the history of her illness, C claims to remember perfectly herself as A and as B. She says, " I remember my thoughts, my feelings, and my points of view in each personality and can see where they are the same and where they depart from my normal self. . . . I have now, as C, all the memories of both states, though none of the co-conscious life which, as B, I claimed and believed I had."[1]

---

[1] " My Life as a Dissociated Personality," *Journal of Abnormal Psychology*, Vol. III., Nos. 4 and 5.

The history of the case is as follows:

> After a prolonged period of nervous strain a severe emotional shock resulted in a splitting of C's personality and the appearance of B. The immediate accompaniment of the change of personality was a complete change in regard to physical health, and a change of moods, tastes, points of view and habits of thought. C, before the disintegrating shock, had been a neurasthenic, easily fatigued, depressed, and troubled with doubts and scruples. The new personality, B, was completely free from neurasthenic symptoms, and her tastes, ideals, and points of view were totally different from those of C. There was, however, no loss of memory of the previous life as C. After a few weeks, B received a shock which brought back C as the dominant personality. But C was now in a somewhat changed condition. Her mental perturbation was greater, she was more intensely nervous, and full of doubts and fears and misgivings. It is to this state that the designation A is given in the record. In this change also there was no forgetfulness by A of the previous life as B, or of the life of C before the shock. A and B alternated without any amnesia of the one for the other up to the time when the case first came under Dr. Prince's observation. The formation of the mental complex which formed the nucleus of B's personality is well described by herself. She says: "A very long time ago C received an emotional shock which it seems to me, as I look at it now, resulted in the first little cleavage of personality. This emotion was one of fright and led to *rebellion* against the conditions of her life, and formed a small vague complex which persisted in the sense that it recurred from time to time." Twenty years later she received a great shock in the sudden illness of her husband. "This second shock aroused the same emotion of fright and rebellion, and seemed to revive and intensify the old complex. . . . It was a *rebellion*, a longing for happiness, a disinclination to give up the pleasures of life which the conditions required; and there was a certain determination to have these pleasures in spite of everything, and this resulted in a constant struggle between C and this complex." Finally, a third shock of a strongly emotional nature happened to C: "She was startled, frightened, angry, all in a flash—and B appeared as a full-blown personality." In her record, B says: "C disappeared somewhere; *the B complex had become a personality*, and I lived a life of my own choosing."

---

[1] *loc. cit.*, p. 241.

When first seen by Dr. Prince, the patient was in the state A, and it is important to bear in mind that until A was hypnotized by Dr. Prince, there was no amnesia of A for B or of B for A ; nor did B claim co-consciousness. After the amnesia of A for B became established, B claimed not only as an alternating personality to remember A, but to be always co-conscious with A, and to remember B's co-conscious thoughts. This important change in the relations of A to B is described by Dr. Prince, in a footnote to C's history of herself, as having come about in the following way:

" One day while A was in hypnosis she suddenly and spontaneously changed to a different hypnotic state characterized by change of facial expression, manner, speech, etc. It was afterwards recognized that this was the B complex in hypnosis. . . . A few days after the B complex had appeared in hypnosis, this phase spontaneously waked and alternated, as it had previously done, with the A complex. But now, as the writer says, there was amnesia on the part of A for B. The explanation of this is undoubtedly found in the fact that a new synthesis and more complete dissociation of the B complex had taken place through the experience of hypnosis." [1]

Dr. Prince's interpretation of this case is that the original healthy person C broke up into A and B, who alternated with one another. At first the dissociation was not complete, so that there was no amnesia of the one phase for the other. Later, however, as already described, B claimed to be co-conscious when A was present as an alternating personality, and consequently had no amnesia for A's life. When A was present as an alternating personality, A had no awareness of B's co-conscious activity ; and when B was present as an alternating personality, A was latent. Consequently A was amnesic for the whole of B's life.

Under Dr. Prince's treatment the original C was obtained by the synthesis of A and B, and the most puzzling feature of the case is the claim of B to persist as a co-consciousness after the normal C had been found. It is difficult to understand how B could participate in the synthesis by which C was obtained, and at the same time persist as a personality distinct from and co-conscious with the personality thus reconstructed.

---

[1] *Journal of Abnormal Psychology*, Vol. III, No. 4, pp. 248–249.

It is in our second series, I think, that we must find a place for many of those more or less fully formed personalities which are met with in connexion with "mediumship," and are usually referred to as "trance personalities." It is true that trance personalities do not, as a rule, alternate with the waking consciousness to the extent of taking possession of the whole bodily organism, and in many instances they afford no definite evidence of their existence as co-conscious activities. Yet in so far as their origin cannot be traced to any large splitting-off or secession from the waking self, they seem to conform to the type of secondary personality whose growth and development take place entirely in the subconscious.

I have assumed that the evolution of these personalities must be dependent on subconscious experiences in relation to the ordinary environment. But if, as some people think, man has an environment which transcends sense, it may be that this environment can affect the subconscious without having any noticeable influence on the waking self. It would then be legitimate to suppose that experience related to such an environment might sometime take part in the formation of secondary personalities.

It would be out of place here to enter into any consideration of the supernormal phenomena which have been claimed to be sometimes associated with trance or other dissociated states. These are commonly lightly dismissed by medical men as being merely products of hysteria and mal-observation. But even if every state of dissociation be labelled hysterical, we gain nothing by claiming this, and we lose nothing by admitting it. If there is any transcendental world, and if it is possible for us to get into relation with it, it may very well be that such intercommunication is only possible during states of mental dissociation. And in regard to super-normal phenomena it does not matter in the least what the term hysteria may connote. The supernormality of an automatic script has to be determined by other considerations than the psychological state of the automatist. If it can be shown that any hysteric really has the gift of clairvoyance or any other supernormal power, it will be just as good evidence as if he were a normal person. If physical objects do move without contact in the presence of anyone who is said to be hysterical, it is just as wonderful as if they so move in the presence of some one who is not.

CHAPTER IV

MULTIPLE PERSONALITY.—*Continued.*

THE terms double and multiple personality have been perhaps too freely applied to dissociations of consciousness whenever the accompanying amnesia is of any noticeable extent. But we are perhaps unduly reluctant to apply these terms when no amnesia is manifested, even although in other and more important respects there may appear to be a true change of personality. In the previous chapter some types of multiple personality have been considered mainly from the point of view of the memory relations existing between the different selves. In this chapter we shall look at the whole subject from another standpoint, and instead of asking, What does one personality know or remember of another personality, we shall rather ask, Wherein does the one differ from the other. Except in so far as change of character can be shown, in any particular case, to be directly due to amnesia, the memory, or absence of memory, of one personality for the other will not be taken much into account. We shall take for our touchstone of what constitutes a change of personality the differences of character exhibited rather than the presence or absence of amnesia. If we survey the records of double and multiple personality from this point of view, we shall find certain lines of cleavage along which the self seems specially liable to disintegrate.

When we examine character as a whole and try to see of what elements it is built up, or along what lines it grows, we may notice that it displays certain features which correspond to the three fundamental modes of our being conscious. We know objects, we are affected by them and we act upon them. So we may say we have an intellectual or cognitive character, an emotional character and a practical character. Our intellectual character expresses the whole of our power to know and to think, but like each of the modes of experience it requires for its fulfilment the co-operation of the other two. Growth in knowledge is accompanied by and dependent on growth in interest and desire. In the main we think and know the things that are of practical importance to us, though at the higher levels of development thinking and knowing may obtain an interest on their own account. Our knowledge to be of use must be organized into systems which are at least congruous and coherent within themselves, and, as an ideal, into systems which are congruous and coherent one with another.

The intellectual character by itself is a relatively unimportant part of man's personality. His knowledge grows in the service of his interests and desires, and these are shown by what he does rather than by what he knows. Our emotions reveal our interests in things, and our attitude towards them, and our whole interest in things and our attitude towards them form our emotional character. In the development of the emotional character the primary emotions and their complex combinations undergo a gradual systematization. This is in part effected by the objects that arouse them, since they belong to particular spheres of interest such as material, social, moral and religious spheres. But the emotions aroused by any object will depend on the aspect presented, for different emotions may be aroused by the same object under different aspects or situations. Such a system of emotions organized about an object has been termed by Mr. Shand a sentiment,[1] and the formation of sentiments is the most important factor in the growth of the emotional character.

---

[1] A. Shand: *The Foundations of Character*.

It is not very profitable, however, to consider the emotional character apart from the practical character. Doing is the end of both knowing and feeling. Our practical character is being formed when our interest is in what we shall do, rather than in what we know or how we feel. It grows out of the striving aspect of experience, but implies knowledge of ends that are desirable. It also implies the power to choose from the ends that may be represented in consciousness, those that are most desirable, and ability to control the impulses that are opposed to their realization. Success in the building up of the practical character depends on habituation in the seeking of right ends, in the habitual acting up to ideals and resolves. It is this actual seeking of ends that distinguishes the practical character from the intellectual and emotional characters.

The three characters can be considered separately only as abstractions. Each of them may have a unity within itself, but the unity of character as a whole requires their integration; and any want of balance, harmony and cohesion between them may determine a line of cleavage along which personality may disintegrate. We may trace such lines of cleavage through all three aspects of character, although they are far more clearly visible in the emotional and practical characters than in the cognitive character. Nothing brings home to us so forcibly as does the study of these disintegrations how small is the value we put upon a man's intellectual attainments when we set ourselves to appraise his personality. We can imagine him losing a large part of his organized systems of knowledge without giving us any grounds for regarding him as a changed personality in any useful sense of these words. So long as he is affected in the same way by the world of his practical life, so long as he reacts in the same way towards that world, we regard him as being practically the same man; but if there is any marked alteration in his emotional character, or if his conduct is such as to be incompatible with the interests and purposes he has hitherto followed, we say, and say with reason, that he is a changed man, a different personality.

Disintegrations of the cognitive character give rise to different degrees of amnesia. Disturbances of the emotional character are revealed by changes of temperament or of disposition, different likes and dislikes, other interests and outlooks. Disturbances of the practical character—the most important of all from the point of view of personality as a conative unity—are displayed by persistence in modes of conduct that are inconsistent with those by habituation in which the practical character has been formed.

We may deal very briefly with those disintegrations of personality which consist mainly in lapses of acquired knowledge or of practical acquisitions. They most commonly occur when amnesia extends over a considerable period of life and implicates not only the memories of the events of that period but also the intellectual or practical acquisitions belonging to it. We may take as an example the complete ignorance of tailoring displayed by the Louis Vivé personality that appeared at the end of his period of training as a tailor at the asylum.[1] His memory went back to the time of the fright by the snake, and, with the lapse of memory of his life at the asylum, his intellectual and practical knowledge of tailoring also disappeared.

There is no very satisfactory explanation of the sharp delimitation to definite periods of time exhibited in the retrograde amnesia of multiple personality. It has its prototype in the retrograde amnesia that may be observed after physical injuries of the head; and it is appropriate that in the domain of double personality the case in which it is seen in its most extreme form—the case of Mr. Hanna

---

[1] *See* p. 124.

—was an instance of disintegration due to physical injury. It is only when the extent of the amnesia is great that by itself it is enough to justify us in speaking of a change of personality. Of far more importance are the alterations of the emotional and practical characters which commonly accompany the amnesia and form so striking a feature of nearly all cases of double or multiple personality.

Perhaps no change accompanying alternations of personality is more frequently observed than a change of outlook, a change in the affective and conative attitude towards life as a whole. There may appear to be an actual change of temperament as well as a change of disposition. A gay and irresponsible person may appear in place of one that is sad and serious. A timid retiring disposition may seem to change into one characterized by boldness and self-assertion. Habitual emotional reactions and customary modes of conduct may be replaced by their opposites.

Changes of this kind may be observed when the alternating personalities are the constricted self of the hysteric and the normal self, or two abnormal selves formed by splitting of the normal self, or any of these selves and a co-conscious self.

In Félida's normal state she was gay and happy, attending to her duties like an ordinary healthy girl. In her constricted hysterical state she was sad and morose, spiteful and taciturn. In the Beauchamp case B_1 was religious, saint-like, melancholic, conscientious, patient and dependent. B_4 was choleric, vigorous, strenuous, impatient, independent and self-reliant. In his first hysterical phase Louis Vivé was quiet, good and orderly; in his next he was quarrelsome, violent, choleric, greedy and dishonest. The personality A of Dr. Prince's BCA case exhibited depression, doubts and moral scruples. Personality B showed a condition of exaltation and happiness, of vigour and ambition. A was all emotion as regards people, but never felt anger or resentment. B had a complete lack of feeling as regards people, but, she says, "I loved the outside world; the trees, the water, the sky, and the wind seemed to be a very part of myself. The emotions by which, as A, I was torn to shreds, as B_3 I did not feel at all."

Some grounds have been shown for doubt as to the genuineness of the spontaneous formation of co-conscious personalities, and more especially as to the spontaneous exhibition of the peculiar characteristics which make most of the recorded cases so interesting. But whatever be their origin, these characteristics show the same tendency to manifest as the "extreme opposite" of those that are exhibited by the other personalities, whether normal or abnormal, with which they alternate. The divergence, in the BCA case, of the emotional and practical character of B from that of A has just been referred to. In Janet's Madame B, the Léonie I personality was a serious and somewhat melancholy-minded peasant, calm and slow, very gentle and extremely timid. Léonie II (Léontine) was gay, noisy and restless to an insupportable degree. Léonie III (Léonore) appeared to be a superior character both to Léonie II, whom she condemned as noisy and frivolous, and to Léonie I, in whom, indeed, she seemed to take little interest.

The most interesting of all recorded cases [1] of co-conscious personality is without doubt the B_3 personality (Sally) of the Beauchamp case. Miss B, B_1 and B_4 were all adult personalities, each in its own way having a "grown up" outlook on life and its problems. But Sally was incorrigibly a child, bright and merry and irresponsible. She took an intense dislike to B_1 which she afterwards transferred to B_4, but while she despised B_1 and spoke of her with contempt, she was always really a little afraid of B_4.

---

[1] This was written before the publication of the Doris Fischer case, described in Chapter V.

The changes of " temperament " which may arise when a secondary personality appears must be correlated with the altered physiological conditions underlying all changes of functional activity. The more specific changes of " disposition," on the other hand, are to be considered as the outcome of the relative strength of the innate and acquired dispositions included in the respective personalities. The line of cleavage will most readily occur between those dispositions whose full realization would be incompatible with the formation of a unitary personality; and the cause of the cleavage may perhaps be found in the conflict that is set up by the impulses to realize such incompatible tendencies. Where such a disintegration of personality occurs the whole emotional character undergoes a transformation. Emotional reactions occur which appear to be inconsistent with the person's known character. Instincts and emotions and sentiments hitherto suppressed or kept in subjection now manifest unrestrainedly, while those that formerly dominated the personality become latent or disappear.

More important even than the perturbations of the affective aspect of personality are those that are manifested in conduct. The ultimate criterion of personality is conduct, for in conduct the interests we have chosen are revealed, and nothing is more indicative of a change of personality than a change in the ends that are pursued. A man may have many interests and under favourable circumstances he may be able to follow them all, but in the construction of the self, in the adjustment of the self to its whole environment, some limitation of interests and systematization of purposes must be submitted to. William James expressed this in his own inimitable way when he wrote about the rivalry and conflict of the different selves that may be found in all of us. " With most objects of desire," he says " physical nature restricts our choice to but one of many represented goods, and even so it is here. I am often confronted by the necessity of standing by one of my empirical selves and relinquishing the rest. Not that I would not, if I could, be both handsome and fat and well dressed, and a great athlete, and make a million a year, be a wit, a *bon-vivant*, and a lady-killer, as well as a philosopher, a philanthropist, statesman, warrior, and African explorer, as well as a 'tone-poet' and saint. But the thing is simply impossible. The millionaire's work would run counter to the saint's, the *bon-vivant* and the philanthropist would trip each other up, the philosopher and the lady-killer could not well keep house in the same tenement of clay. Such different characters may conceivably at the outset of life be alike *possible* to a man, but to make any one of them actual, the rest must more or less be suppressed."

When a splitting of personality occurs these suppressed selves seem to find their opportunity, and in many of the recorded cases of double or multiple personality we may interpret the character of the new selves as being the outcome of tendencies, potential in the original structure of the personality, which have been suppressed or subordinated to the purposes that have been chosen and the ends that have been pursued.

But it is, on the whole, surprising how inconsiderable are the modifications of the practical character met with in many of these cases, although in other respects they show all the recognized peculiarities of secondary personalities. Thus, for example, Ansel Bourne's life as a shopkeeper was in all essential matters entirely congruous with his whole character in his normal state. So far as we can judge it differed not at all from what it would have been if, without any "change of personality," he had decided to give up carpentering and open a small shop.

So also in the case of Félida X, although when she passed from the one state into the other her disposition and her intelligence underwent a change, she nevertheless continued her work, whatever it happened to be. A similar fundamental continuity of interest has been observed in many other cases where the aberration of conduct depended upon the amnesia which was present rather than on any noticeable change in the practical character. More striking still is the absence of any great difference in the moral character of the different selves in the recorded cases. Of the examples given in the previous chapter, Louis Vivé alone showed phases of personality which could be properly described as "good" and "bad." Some explanation of this comparative immunity from grave disturbance of the practical and moral character in recorded cases of multiple personality seems called for.

In every form of double or multiple personality there is some sort of division or disruption of the unity of the self. But it is here that it is most important to distinguish between the unity of consciousness and the higher unity which is implied in the conception of personality. When we speak of the unity of consciousness we should refer only to the unity which is observed within the field of consciousness and to the continuity which normally characterizes the stream of consciousness. The unity of consciousness, thus understood, depends on the immediate contiguity of the components of any present moment of consciousness and the contiguity of the successive moments in the transition from one to another which constitutes the stream of consciousness.

Disruption of the unity of the field of consciousness is observed in the common symptoms of hysteria, such as anæsthesia, where some part of the conscious field that ought to be supraliminal has become subliminal. Disruptions of the continuity of the stream of consciousness are exhibited in the amnesia of hysterical fugues and still more clearly in that of multiple personality. Such unity and continuity of consciousness is a necessary and important part of our conception of personality, but in this there is also implied a higher unity of the self which is not dependent on a mere contiguity of elements. This unity is essentially a conative unity. It is a unity and continuity of interests and purposes. It is a unity that is not given in the structure of the mind, but is something that the self can aspire to and, it may be, by struggle, attain. In the struggle towards this ideal, character is formed, and when such unity as may have been attained is disrupted the resulting change in personality will reveal itself as a change in character and conduct.

In many of the recorded cases of double personality we find a disruption of the mental life which would perhaps be better described by the old name of double consciousness. We should bear in mind all that personality stands for, and we should not too lightly describe as an alteration of personality a phase of consciousness which is characterized mainly by a break in the memory chain, and not by any obvious change in character or conduct.

Now the alterations of personality that are produced by a true splitting of consciousness are not likely, as a rule, to be of a very pronounced character from the point of view of personality as a conative unity. The fact that the different interests and purposes of the new personality were at one time conjoined in a more or less unified system is sufficient indication that they cannot be altogether mutually incompatible. Their appearance as separate personalities is but an emphasis or over-statement of certain aspects of character between which there is no such inherent incompatibility that they cannot under certain conditions be unified in one and the same personality. The suppression or abandonment of interests which takes place in the growth of personality, is, as a rule, determined by the needs of practical life rather than because they are really incompatible one with another, or because any inconsistency of conduct would be implied in their pursuit. And if a man in periods of relaxation from the actual business of his life should elect to follow again some of these subsidiary interests which he seemed to have outgrown, no one would suggest that this of itself would indicate a change of personality. But if one of these interests takes such hold of a man that its pursuit becomes inimical to what he has hitherto held most dear, if he abandons the purposes of a lifetime and forms new ideals and seeks new ends, then we may say that he is a changed man. He is a different personality in the truest sense of the word.

But to warrant us in describing such a change in a man's practical character as a change of personality, we must be sure that the alteration of conduct observed is really opposed to his highest or more ultimate ends. The proximate ends which a man pursues may appear on the surface to be inconsistent one with another, although really unified in some more ultimate end which forms the guiding principle or master sentiment of his life.

If then, unification and systematization of interests and purposes are essential to the formation of personality, a failure or defect of this process, a lack of integration of personality affecting mainly the practical character, may give rise to a division of the self which should be regarded as a true doubling of personality. And since it is on the organization and systematization of ethical interests and purposes, on the unity of the moral character, that the attainment of personality in its highest expression depends, any lack of integration affecting this aspect of mental development will reveal itself as a want of unity more marked than that which arises from defect of the integrative process in other directions. Under certain circumstances it may lead to the most startling transformations that human personality can undergo.

A man's moral unity is manifested by a constant striving to realize a definite system of ethical purposes, and any habitual and systematic departure from the broad lines of conduct consistent with this end, any persistent pursuit of interests which are incompatible with its realization, implies a doubling of personality which is as real and as important as any of the conditions to which this term is usually applied.

In the course of individual experience various interests and desires arise, some of which are totally incompatible with others. When two such opposed interests or desires arise at the same time, we experience an internal conflict and we feel that a choice must be made between them. Where no unified system of purposes has been attained there will be vacillation and doubt, and the internal conflict will continue until action is precipitated by some outside cause which determines conduct in one way rather than in another. On a subsequent occasion a similar conflict may arise, and this time the scales may be so weighted that conduct of an opposite kind takes place. Similar situations may occur again and again, and sometimes conduct may take one form, sometimes the other. The inconsistency of conduct which may thus be exhibited bears within it the germs of double personality.

In no department of life is the conflict set up by incompatible interests so great, and the consequences so grave, as when holding to these interests leads to inconsistencies of conduct which is of ethical significance. It has been the universal experience of mankind that conflict is most apt to occur when the satisfaction of bodily appetites and desires is opposed to that feeling of " ought " whose origin is one of the most disputed problems of Ethics. Our bodily appetites urge us in one direction, our ideas of right and wrong and our feeling of " ought " urge us in another. If sometimes we follow one course and sometimes the other, two systems of opposed conative dispositions become organized by habit, each of which, throughout life, struggles for the mastery of the whole personality. These two systems are mutually incompatible and can never be unified in a single personality. Their alternate manifestations in the same individual mark the beginnings of a genuine doubling of personality which, because it is so common, cannot be regarded as abnormal.

In thus extending the conception of double personality so as to include all habitual and systematized inconsistencies of moral conduct, we encounter a very old problem which has not ordinarily been recognized as having any affiliations with the problems of abnormal psychology. Moral philosophers who deal with the problems of conduct confine their discussion to the "normal" man. They draw a sharp line between healthy-mindedness and the insanities, and thereby miss some of the lessons to be learned from a survey of the intermediate territory.

A vast literature has arisen around the problems of conduct in the normal or ordinary man. Much has also been written about disorders of conduct in the insane. But there is a great region still almost untouched whose investigation promises to throw much light on some of the most obscure problems of Ethics. The aberrations of conduct that may be observed in men and women, who, if they cannot rightly be regarded as quite normal, can certainly not be described as insane, offer a field of research which should yield results of the utmost value.

The problems of conduct that arise from the organization in one individual of two mutually incompatible systems of conative trends have received much attention from writers on Ethics since the days of Aristotle. Plato had taught that it was impossible for a man to sin against knowledge—that if he had a true knowledge of the right, he could not possibly do the wrong; and it was in an examination of the Socratic identification of virtue and knowledge that Aristotle developed his doctrine of *ἀκρασία* or incontinence.[1]

In Plato's philosophy, and indeed in all idealistic moral systems, too much stress is laid on the extremes of human character represented by virtue and vice, and too little notice is taken of the types that may be found so abundantly in everyday life between these extremes. Aristotle, dealing in his more practical way with human nature as he found it, was forced to recognize that sinning against knowledge is a very common feature of human conduct; and he set himself to examine the various explanations that may be put forward to account for it. He pointed out that the Socratic distinction between true knowledge and mere opinion does not help us to explain the occurrence of *ἀκρασία,* for opinion is often as hard to move as knowledge. Of more value is the distinction between merely having knowledge and having it and realizing it. We need not be surprised if a man sins against knowledge which he has, if at the moment of action such knowledge is not present to his consciousness. Further, when we speak of knowing in regard to the rightness or wrongness of any act, we must distinguish between knowledge of the universal—the general rule of right conduct—and knowledge of the particular instance to which it is relevant. In the formal exposition of Aristotelian Ethics every action due to a conception of ends, every purposive action, is analysed into a practical syllogism in which the major premiss is a universal proposition and the minor premiss a particular case to which the universal is applicable. Further, each premiss has a subjective and an objective reference. For example, the universal proposition, "excess is bad for every man," may have two minor premisses: "I am a man" and "this is excess." If either of these should be forgotten, the conclusion "this is bad for me" will not be drawn.

---

[1] I use the Greek word because of the exact meaning which it has acquired in the writings of moral philosophers—a meaning which is not adequately represented by any of the accepted translations. *Ἀκρασία* is generally translated as "incontinence," but it has a much wider meaning than that usually implied by the English word. It may be used in regard to almost any kind of want of self-control. So also with regard to the terms *σώφρων*, *ἐγκρατής*, *ἀκρατής*, and *ἀκόλαστος*, the English translations are to be understood in the sense of the Greek words, as these were defined by Aristotle.

The *σώφρων* or temperate man has no bad desires. He does not feel those things pleasant that transgress the "law of reason." The *ἐγκρατής* or continent man has bad desires, but thinks them wrong and overcomes them. The *ἀκρατής* or incontinent man has bad desires, thinks them wrong, but succumbs to them. The *ἀκόλαστος* or profligate man has bad desires, but thinks them right and "goes in for" them.

Both the man who does not use his knowledge and the man who does use it are said to know, and there is no reason why a man may not sin against knowledge, if he uses only the universal proposition and not the particular. For it is only what he realizes in particular cases that can affect his actions. He may consciously realize that "excess is evil," but if he fails to realize that "this is excess for me," the knowledge of the universal will not help him.

There is another sense in which a man may be said to have knowledge and yet not to have it. He may be in a state in which his knowledge, though present, has lost its reality. He may repeat moral maxims which mean nothing to him, like a man who is drunk or who talks in his sleep. In this sense also, then, a man may be in possession of knowledge which is not available for use at the moment of action.

So far Aristotle accounts for *ἀκρασία* by the non-realization of knowledge, but he carries his explanation much farther, and makes it of more practical significance, when he comes to inquire how it happens that in the incontinent man knowledge fails to be realized.

He finds the proximate cause of an incontinent act in the special manner in which desire uses the mechanism of the practical syllogism to attain its own ends. The universal " excess is evil " is not allowed to reign unopposed in the mind. The minor premiss, " this thing is sweet," on which attention is concentrated through the influence of appetite and desire, sets up another major premiss—the universal judgment—" all sweet things are pleasant " ; and since it is only feeling that has the power of inciting to action, the second universal is applied.

Some commentators are of opinion that the cases of acting against knowledge described by Aristotle as being due to latency of the minor premiss of the practical syllogism, that is to say, to ignorance or non-realized knowledge of the particular, are not true cases of ἀϰϱασία, but rather a sort of pseudo-incontinence which is really irrelevant to the question at issue. Wherever there is absence of knowledge of the particular, however brought about, it cannot be truly said that the man has done something which *he knew at the time* to be wrong. And indeed it would seem that in all genuine instances of ἀϰϱασία some knowledge, however vague, of the wrongfulness of the contemplated act is present, otherwise there would be no struggle ; and a struggle followed by failure and subsequent remorse is the very essence of incontinence. The continent man struggles and succeeds. The incontinent man struggles and fails. Both have the right principles, but the one resists whilst the other succumbs to temptation.

But the mere presence in consciousness of a knowledge of the wrongfulness of the act, the vague realization that " this is excess," avails little against the vivid consciousness of its " sweetness " produced by the present concrete fact of sense-stimulation. Such vague knowledge may, as Mr. Bradley says, " serve in temptation but to sour the pleasure without preventing the sin." For " any mind which can abstract and reflect and reason discursively will be able to think of an act as being wrong, and yet this feeling of that act's wrongness may not pass beyond an ineffective minimum. It is only when the attention is concentrated upon the quality of the act, and even then it is only when the act in its wrongful quality is present as a vivid imagination that the conscience will be irresistible."[1]

Thus the mere presence in consciousness of knowledge of the wrongfulness of an act will not prevent its occurrence. It is "feeling" that "moves the limbs," and unless the knowledge of the wrongfulness of the act is sufficiently clear in consciousness it will fail to call up the feelings appropriate to such knowledge with vividness and intensity sufficient to overcome the feelings aroused by the concrete sensory fact which solicits to incontinence. Yet the knowledge may be sufficiently clear to produce a conflict in the mind, and it is on the issue of this conflict that conduct will depend.

The mental conflict which precedes incontinent acts, and the mental mechanisms concerned in bringing such conflict to an end, are closely analogous to what is known to occur in certain abnormal states; and I suggest that in *ἀϰϱασία* we have an incipient doubling of personality which when it passes beyond a certain ill-defined limit is readily admitted to be abnormal. That true double personality of this type occurs, I have no doubt. I will presently describe some of the features which I have observed in cases that have come under my own observation. They show various degrees of division of personality, and probably no hard and fast line can be drawn dividing these cases from ordinary conditions of *ἀϰϱασία*.

In order to bring out the affiliations of *αϰϱασία* with double personality of this kind, it is necessary to examine some of the ways in which mental conflict is avoided or terminated when it arises in the mind. Mental conflict occurs when, in any situation involving conduct, incompatible interests present themselves. The solicitations of sense urge us in one direction; our moral principles, our ideals of what sort of person we are trying to be, urge us in another; and so long as the struggle lasts, action is impossible. The conflict must somehow be ended; and how it is ended depends upon what sort of person we are. Where a well integrated personality has been already built up, where the practical character has been well organised by the habitual seeking of right ends, the struggle will be short and the issue sure. The temptation will be fairly faced and recognized as something incompatible with the systems of interests and purposes which have been chosen as the motives of conduct in the past. Its seductiveness will be appreciated as appealing to a weakness of our lower nature which we have long ago determined to master; the right course of action will be followed deliberately and without reservation. This is the action of the continent man.

---

[1] *Mind*, Vol. IX. O.S., p. 290.

When personality is less completely integrated, when the moral character is less firmly organized, there may be more prolonged deliberation and the issue will be less sure. For here the mechanism of *ἀκρασία* may come into play. The force of desire may tend to self-sophistication. It may beguile the reason into avoiding the conflict altogether by setting up and holding in the focus of attention every consideration which can support the judgment that the opposing interests are not in this particular case incompatible.

This process of rationalization, as it is called, is one of the ways in which knowledge of the particular—the minor premiss of the practical syllogism—may come to be not realized. The proposition "this is excess" may arise vaguely in the mind, perhaps in the form of a question "Is this excess?" but the realization that it is excess is prevented by the dominance in the mind of the reasons which seem to justify the judgment "this is not excess."

Contrary reasons, reasons that would support the judgment "This is excess" tend to be suppressed. There is temporary amnesia caused by desire.

When the act is done and desire has subsided, the self-sophistication may be recognized and remorse experienced. Yet when the man is again beset by temptation, the same process of rationalization of the incontinent act is gone through and the resistances of moral scruples are more speedily overcome. By such habituation in courses of conduct opposed to the principles deliberately adopted by the man when not under the sway of passion or desire, there results an organization of channels of outlet for conative trends that are opposed to his true interests and purposes. Two incompatible systems thus come to exist side by side in one individual, and this is possible only because of the rationalization that is set up so soon as they come to confront each other in consciousness.

Even when rationalization does not lead to complete self-sophistication and does not prevent the wrongfulness of the act from being discerned, it may yet reduce the feeling of its wrongfulness to a minimum so that it is of no avail as a director of conduct. The ideas thus admitted into consciousness under the stress of temptation and desire may be allowed to recur in moments of mental and moral relaxation, and the same process of rationalization permits of imaginations and phantasies which still further strengthen and encourage the growth of the undesirable complex. At times of greater mental and moral vigour, when the real interests of life are being attended to, the incompatible system of ideas is pushed out of consciousness; but so long as no actual dissociation takes place it is never so far from the surface that it cannot recur in undisguised form and be dealt with by the same process of rationalization.

Severe mental conflict is most likely to arise in relation to incompatibilities of conduct that are of high ethical significance. The complexes of ideas most likely to be suppressed are those whose issue in action would be diametrically opposed to the normal character and conduct of the individual; and the process of suppression may be less or more successful in different cases, so that the consequent mental dissociation may be less or more complete. Yet it is noteworthy that the moral conduct of the secondary personalities of the majority of recorded cases seldom shows any marked difference in important respects from that of the primary personality. In ordinary instances of *ἀκϱασία* we find alternating phases of conduct that are more obviously incompatible one with another, than those shown by most of the classical cases of double or multiple personality.

Why are there so few cases on record of conditions of double personality corresponding to the type depicted by Stevenson in Dr. Jekyll and Mr. Hyde? Perhaps because of the power of rationalization in permitting the growth of two incompatible systems of interests within the stream of consciousness and the consequent absence of amnesia between the alternating phases of the mental life. So long as there is no forgetfulness of the one phase by the other, a double life may be led without discovery, or when discovery takes place the facts come before the jurist rather than the physician or the psychologist. How many Mr. Hydes might we find to-day within our prison walls? How many Dr. Jekylls occupying seats of honour in the high places of the world?

Not many, perhaps, conforming in detail to the type portrayed by Stevenson. For in the character of Mr. Hyde we have a regression to an almost pre-human level of conduct. Some of his appetites and desires were such as are regarded by all civilized peoples as being "unnatural." But the wrong-doing of the *ἀκϱατής* and the aberrant phases of the "double lives" of real men and women are almost always an undue or illicit indulgence of the

" natural " appetites—appetites whose gratification in moderation and in some circumstances is considered right, but in excess, or in other circumstances, wrong.

There is one particular feature which may be held to distinguish double personality of the Jekyll and Hyde type from pronounced cases of *ἀκρασία.* It is the presence of this feature which marks off the former as being definitely pathological. This feature is the occurrence, in the cases of double personality, of longer or shorter periods of evil living which alternate with periods of upright life. It may be said that the acts of the *ἀκρατής* are short periods of evil living in an otherwise upright life. But the distinction is to be found in the fact that such acts of incontinence are the succumbings to particular concrete temptations, whilst the phases of moral depravity in the Jekyll and Hyde type of double personality are rather of the nature of moods which may occur in the absence of temptation and are accompanied by continuous evil living so long as they last. In well marked cases the victim of this form of double personality may alternate between long periods—months or years—in which he is the continent or even the temperate man, and shorter periods—weeks or months—in which he is entirely profligate.

This type of double personality is, I believe, a pathological development of *ἀκρασία.* The continent or the temperate man can never split up into a Jekyll and Hyde. Only in the incontinent man, where two incompatible systems of interests have been permitted to develop side by side, can such a division occur. Ordinarily perhaps the *ἀκρατής* remains *ἀκρατής* to the end. Sometimes he may learn to overcome his temptations and become the continent man. Sometimes he may succumb to his lower nature and lapse into a state of profligacy in which he forgets or rejects the purposes and ideals which once urged him to a higher life. But sometimes it would seem that owing to some inherent constitutional peculiarity, or some untoward circumstances in his life, the mental complexes built up around his tendencies to good and evil become more or less completely separated from each other in mass, so that henceforth he lives the life of a double personality, in each phase of which his now uninhibited proclivities alternately attain exaggerated expression.

This exaggeration of the respective characters of the alternating phases, the excessive piety of the one phase, and the whole-hearted wickedness of the other, is a very noticeable peculiarity of these cases. It may be interpreted in various ways, and may indeed be due to various causes. The relatively complete dissociation which occurs between the two incompatible systems of thought when a true doubling of the moral nature takes place, entails a withdrawal of the inhibitions which one system has upon the other so long as, by means of rationalization, they can be brought face to face in consciousness. The tendency towards righteousness in one phase may now find expression unhampered by opposing interests or desires. The tendency towards evil in the other may have free vent without any souring of the sinful pleasures by thoughts of lost ideals or broken resolutions. There is now no conflict because the antagonistic complexes never meet face to face; and since each goes its own way uninfluenced by the other it works with unimpeded force.

This exaggeration of the manifestations of the opposing tendencies may also be related to the phenomenon described in the writings of the Freud School under the name of "projection." When a complex is repressed whose admission into consciousness would be accompanied by feelings of self-reproval, some outlet for the repressed affects is afforded by the projection of the related tendencies on to some other person. We are prone to see in others those very faults which we are unwilling to recognize in ourselves. We displace the energies that ought to be directed to self-castigation and self-discipline and expend them in the admonition and exhortation of others. And so, in each of the phases of the type of double personality we are considering, the mechanism of projection is brought into play. In the good phase of these double lives we find a tendency to engage in " good works " which have as their object the reclamation of others who have fallen victim to the very vices exhibited in the evil phase. In the evil phase, on the other hand, I have observed a tendency to hold up to ridicule or contempt all the principles and ideals which guide the man's conduct in his good phase.

Another frequent source of the accentuation of the characteristics of each of the two phases, and a forerunner sometimes of the more complete dissociation which conduces to their periodic manifestation, is the occurrence in the *ἀκρατής* of that mental crisis known as religious conversion. It may not be denied that in many cases the experience of conversion leads to a permanent elevation of the moral life and a more complete integration of personality. Temptations may still arise but an added power of resistance has been acquired. In many instances, however, conversion is followed, sooner or later, by " backsliding." The newly acquired spiritual energy is insufficient to overcome for long the tendencies hitherto uncontrolled, and after a shorter or longer struggle the " natural man " comes into his own again.

Yet perhaps in most genuine cases of conversion the result as a whole is a more or less noticeable unification of the personality, a growth and expansion of the higher life, and a regulation and subordination of the animal passions and desires. But in a small proportion of cases, instead of leading towards unification of the personality and a consequently greater capacity for adjustment to all the eventualities of life, conversion acts as a disintegrating force which cleaves the poorly integrated self into two and leads to the formation of a double personality of the type we are considering.

In these cases the heightening of ideals and the increased energy of the impulses tending towards righteousness will no longer permit of the conflict that ordinarily arises in presence of temptation. Rationalization is no longer able to lull the conscience so that the evil desires may be allowed to enter consciousness and to hold the attention during the process of self-sophistication. These desires are now so abhorrent to what the convert feels to be his true self, that they cannot be looked fairly in the face but are subjected to immediate suppression. The whole system of thought to which they are related tends to become dissociated from the new self which is dominated by religious fervour. Some of the force imparted to the new life may be derived from sublimation of the old desires, but the more completely do these desires become dissociated, the more does their energy become locked up in the unconscious from which it may find no adequate outlet save through the accustomed channels—that is to say, through gratification of the old desires in the old ways.

These dissociated desires are subjected to repression which keeps them out of consciousness so long as the enthusiasm of the convert for his new life is maintained. But when disappointments and disillusionments come, when the tension of the spiritual life becomes relaxed, the offending complex may burst its barriers and, pushing on one side all that opposes it, may dominate the personality for a longer or shorter time. We then have the strange spectacle of a temperate man becoming suddenly changed into a profligate—not the temporary lapse of the *ἀκρατής*, followed immediately by repentance and remorse, but a seemingly deliberate adoption of a course of life, in which for the time being he is truly *ἀκόλαστος*. The whole of the system of ideas whose ready admission into consciousness by means of rationalization had formerly determined his *ἀκρασία*, being now freed from conflict with the system of ideas which formed the other side of his nature, the evil in the man assumes full sway over all his actions and produces a state of true, if temporary, *ἀκολασία*.

The first lapse into profligacy may be accompanied or occasioned by a strong feeling of rebellion against the hitherto accepted religious or cultural dogmas which lay stress on the importance and value of the continent life. This is perhaps specially noticeable in those cases in which the *ἀκρατής* has experienced religious conversion. A narrow religious upbringing in which " the fear o' hell's a hangman's whip to haud the wretch in order " provides a good soil for the development of psychopathic maladies, and it is not uncommonly found that more or less grave mental disturbances form an aftermath of great religious " revivals." The emotion of fear when intensely aroused is probably the most disintegrating force to which personality is ordinarily exposed, and although the fear of eternal punishment may sometimes be the driving force behind aspirations to a better life, it is also known to have a disintegrating effect which in the end may lead to the formation of double personality of the kind we are considering.

In such cases the rebellion that assists in the cleavage between the two sides of the man's nature takes the form of a conflict which is terminated by means of rationalization whereby the beliefs underlying this particular fear are shown to be invalid. As a consequence a violently anti-theistic attitude may be temporarily taken up in which all the customary moral obligations are held to be without foundation; or the reason may be beguiled by the adoption of a mawkish optimism which, since " all's right with the world," permits and condones the moral lapse.

A feeling of rebellion against some of the conditions or circumstances of life, against the restrictions imposed by culture or morality, is a very common accompaniment of disintegration of personality. When this spirit is aroused suppressed complexes seem to find their opportunity. It is well described by the B personality of Dr. Prince's BCA case, although here the opposed complexes were not so fundamentally incompatible as in cases of the Jekyll and Hyde type.

The personality B, in tracing the origin of the mental complex from which she herself arose, refers to the emotional shock experienced by C which led to the first little cleavage. " This emotion was one of fright and led to *rebellion* against the conditions of her life." Twenty years later the second great shock " aroused the same emotions of fright and *rebellion*, and seemed to revive and intensify the old complex." During the four following years this complex of rebellious thoughts became intensified and more persistent. " It was a *rebellion*, a longing for happiness, a disinclination to give up the pleasures of life which the conditions required ; and there was a certain determination to have those pleasures in spite of everything, and this resulted in a constant struggle between C and this complex."

These words express very well, I think, the nature of the rebellious feelings which arise in the mind of the converted ἀϰϱατής when his tendencies towards conduct which, though sinful, is pleasant, are struggling against the new forces which are keeping them repressed. The primary instincts provide the motive force of the " determination to have those pleasures in spite of everything " —a determination which may be quite unconscious—and the rebellion implied in this determination secures, when it is successful, the overthrow of the inhibiting self.

The occurrence of the Jekyll and Hyde type of double personality is only possible when, as in the life of the ἀϰϱατής, two incompatible systems of interests have been allowed to develop, and two corresponding systems of physiological dispositions adapted to their gratification have become organized by habit in the actual seeking of opposed ends. In some natures when desires opposed to the consciously adopted interests of the personality arise, they cannot be subjected to scrutiny and deliberate rejection, nor can they by any process of rationalization be adjusted within the personality so as to permit of their gratification. The moral nature may be so sensitive, or the invading desire may be so incompatible with the whole personality, that the conflict entailed by consciously fighting and overcoming it would be intolerable. Or the mental vision may be so clear and the power of self-criticism so well developed that no process of rationalization is able to lead to self-sophistication. The only course left open is to banish the undesirable ideas from consciousness altogether, to refuse to entertain them for a moment, to treat them as if they had never entered consciousness at all. When this is done successfully these ideas become dissociated, and they may subsequently form the ground of a neurosis or find expression in sublimated activities.

The complexes of ideas suppressed and dissociated in the course of normal mental development form but a small section of consciousness, and it is owing to the relatively much greater extent of the opposing complexes that dissociation is so complete and repression so successful. Even in the less successful repression which culminates in neurosis this is also true. But when, as in the hitherto incontinent man who experiences religious conversion, the complex to be repressed has attained enormous proportions as a result of long habituation in the actual seeking of ends that are now regarded as abhorrent, the suppressing force may be insufficient to cause complete dissociation or to maintain an effective repression. As a consequence we may be prepared to find that when the repression fails, the evil complex which has gained in energy by the temporary blocking of its accustomed outlets, bursts forth in undisguised form and for a time dominates the man's life. We may also be prepared to find that in each phase of his double existence he has not lost the power of recollecting the events of the other. It may be that in some cases of fugue-like states of moral depravity dissociation may be complete and total amnesia of one state for the other may be found; but in all the instances of which I have personal knowledge the continuity of memory on passing from one state to the other was psychologically the most striking feature, as it was ethically the most puzzling.

It may be, however, that the continuity of memory running through the morally incompatible phases of the man's life is more apparent than real. An intimate acquaintance with some of these cases has led me to believe that here more surely than in ordinary *ἀκρασία* there is an amnesia of a more subtle kind than that which bears only on the events of life that succeed each other in time. It is a defect which is perhaps of the nature of anæsthesia rather than amnesia. It is a failure to realize the feelings appropriate to the things that can be remembered. Just as in some forms of *ἀκρασία* a man may repeat moral maxims while persisting in his incontinence, so in the evil phase of double personality he may recall the activities of his proper life without having a trace of the feelings which actuated his conduct therein. If there is an amnesia it is an amnesia of the interests, the purposes, the ideals, that belong to the phase of personality which we must regard as his most real or true self.

The impossibility of experiencing the feelings and desires of the other personality is found both in the moral phase and in the immoral phase of the divided life. In the moral phase the desire to do evil is absent; the things that make an evil life attractive are forgotten. In the immoral phase the desire to do good is absent; the things that make a good life attractive are forgotten.

It would seem then that in this as in other forms of double personality disturbance of memory may be present, even when there does not appear to be any amnesia in the ordinary sense of the word. And if a man forgets his ideals and aspirations, he is in a worse plight than if he forgets only his attainments or his actions in the past. He may forget *who* he is without very serious consequences, but if he forgets *what* he is the consequences are grave indeed. A loss of orientation in the world of morals is inevitably a tragedy.

CHAPTER V

THE DORIS FISCHER CASE OF MULTIPLE PERSONALITY

THE story of Doris Fischer has been told, in the *Proceedings of the American Society for Psychical Research*,[1] by Dr. Walter F. Prince, an American clergyman, and Dr. James Hyslop, the Secretary of that Society. It is a story of dissociated personality, more fully reported than any hitherto recorded, and in some respects unique. Dr. Prince's record occupies over thirteen hundred pages and is the outcome of more prolonged and more continuous observation than is usually possible in such cases. His unusual opportunities for observing the many peculiarities described by him arose from his having, at an early stage of his investigation, adopted Doris as his daughter and brought her to live in his house. Dr. Hyslop's share of the record consists of over eight hundred pages in which he advocates a spiritistic interpretation of some of the phenomena of multiple personality, and claims support for his views from a series of observations and experiments conducted with his medium, Mrs. Chenoweth, when Doris was the sitter.

In trying to get a grasp of the various personalities in this case, two courses are open to us; we may either consider the personalities in the historical order of their appearance, or we may consider them in the order of their discovery by Dr. Prince. The latter is, perhaps, the course which will be most helpful to those who have no knowledge of the case. What can be said about the order in which they arose in the life-history of Doris will then be more easily understood.

---

[1] *Proceedings American Soc. for Psychical Research*, Vols. IX., X. and XI.

Towards the end of October, 1909, a somewhat forlorn and careworn-looking girl, 20 years of age, joined the Sunday School of the Episcopal Church of which Dr. Prince was then rector. She was invited by Mrs. Prince to the rectory and soon became a frequent visitor. There Dr. Prince made her acquaintance. At first he did not pay much attention to her, but he thought there was something odd about her. She seemed to be "singularly mercurial in temperament with moods that passed like the cloud and sunshine." At times she was jolly and amusing. At other times she was sedate and melancholy.

Mrs. Prince discovered that she slept little at home and began to encourage her to come to the rectory in the evening and lie down. It was then discovered that she talked in her sleep. At times she appeared to be describing visions of beauty, at times appeared to be sustaining her side of a dialogue, at still other times she uttered impatient or angry ejaculations or seemed to be threatening herself. In this last mood she would look positively malicious, clutch savagely at her hip, which was supposed to be tuberculous, or make efforts to maltreat other parts of her body. Mrs. Prince was forced to watch her every movement and often to hold her hands or to put forth all her strength to restrain her from injuring herself. This went on for about eight months, and the nervous and physical strain entailed by her self-imposed task began to tell on Mrs. Prince's health. On account of this Dr. Prince suggested that the girl might occasionally try to sleep on the lounge in his study where he could keep watch on her, and thus arose the opportunities for the prolonged and continuous observations which are contained in the "Daily Record." Dr. Prince began his observations on January 17th, 1911, and next day started the records which he continued daily, with almost no exceptions, for more than three years. On January 20th, it suddenly dawned on him, accompanied by wonder that it had not done so before, that here was probably a case of dissociated personality. He proceeded to test his hypothesis and was very soon convinced that it was correct.

Underneath the Doris that he knew, who afterwards came to be known as Sick Doris, he discovered a personality, child-like and winsome, to whom the name Margaret was given. This doubling of the personality was the explanation of some of the oddities that had struck him when he first knew the girl. When she had appeared, forlorn and careworn, Sick Doris had been "out"—as being supraliminal came to be called. When she had been jolly and amusing, Margaret had been "out" and Sick Doris had been "in."

Although Margaret was on the whole a very lovable personality she was at times mischievous and malicious. If Sick Doris did anything of which Margaret disapproved, Margaret would take her revenge at night during sleep by clutching at the hip and otherwise maltreating the body. This habit of hers was the original cause of the need for watching and restraint during sleep. In the evening of January 22nd, Sick Doris came to the rectory looking very jaded and miserable and was evidently suffering. Presently she lay down and went to sleep. Margaret came and clutched savagely at the hip and scratched the neck. Dr. Prince remonstrated in vain. Stern commands to desist had no effect but to increase the manifestations. The scene that followed is so important for the understanding of the case, and so dramatic in character, that I give it in Dr. Prince's own words: "Attempting suggestion I began to say impressively, ('I am going to take away your power. You are growing weaker. You are losing your strength '). The struggles became weaker. Finally I said, (' Your strength is gone. You are powerless '). All striving ceased, the face changed, and she (S. D.) awoke. She now appeared extremely languid and spoke with difficulty, but said that she felt no pain. Her vital forces seemed to be ebbing away and she gradually passed into a condition which made Mrs. Prince and me think, not for the first time, that she was dying. Her pulse descended to 54, and became feeble. She seemed only half conscious, but occasionally looked wonderingly at the two who were sitting by her, affected by their impression that she was near her end. At length she murmured : ' Am I dying ? (I think so.) Don't you want me to go ? ' She smiled peacefully, as though glad both to go and to know that she was to be missed. She looked singularly unlike her afternoon self, the very shape of her face altered —it seemed thinner, as though she had passed through a period of sickness since. Under the spell of considerable emotion I was looking into her eyes, and presently her gaze fixed upon mine, and with parted lips she continued to look, not rigidly, but dreamily and peacefully, while we waited for the end which we thought so near. After some time it suddenly struck me that her gaze and feature were unnaturally fixed—I stooped to examine her.

" Just then a voice issued from her lips, though no other feature moved : ' You must get her out of this. She is in danger.' It was as startling as lightning from the blue sky. Of course I thought it must be Margaret speaking, but there was a calm authority in her tone which was new. I shook the girl gently, her face did not change. ' Shake her harder,' the voice went on. ' Hurry ! Hurry ! ' It was evident that Doris was in a profound state of hypnosis, and I began vigorous measures to bring her out, with the result that her eyes rolled and her limbs moved. Shaking her and shouting in her ear brought her to a sitting position. ' Walk her ! walk her ! ' said the voice. At first there was difficulty in carrying out this order, she stumbled and tended every moment to collapse upon the carpet. Directions occasionally continued to issue from the lips . . . directions which I never thought of disregarding, they were delivered with such authority and characterized by such good sense. Finally we heard, 'She is coming to herself now; she will be all right soon.' No more directions were given, and almost at once the face showed more animation and intelligence."

I do not know what impression the account of this singular episode may produce on the mind of a non-medical reader, but I know what they may suggest to anyone who has had some experience of hysteric and hypnotic phenomena. Dr. Prince's suggestions, "I am going to take away your strength. You are growing weaker. You are losing your strength. Your strength is gone. You are powerless," were more potent than he had anticipated. Not only did they cause a cessation of Margaret's savage movements, but they produced, as suggestions of this sort may, a depressing effect on the whole physical organism. Such suggestions given to a person already in enfeebled health may bring about a state that appears very alarming and may easily lead one who is unfamiliar with such phenomena to lose his head. Dr. Prince's final suggestion, conveyed in his reply, "I think so," given to the question, "Am I dying," was the climax. Something was bound to happen and the patient's only way of appearing to carry out the suggestion short of actually dying, was to go into a deeper stage of hypnosis. This was facilitated by the fixed emotional gaze which the situation had chanced to bring about.

The voice that came like a bolt from the blue was an interesting and no doubt startling phenomenon. But there is no reason to suppose that the voice had any other source than some deeper stratum of her own being. This deeper and more sane personality, recognizing that Dr.

Prince had lost his bearings, feels the need to take control herself, and she issues commands which he dutifully obeys. The voice was the voice of Sleeping Margaret, and from this moment she dominates the scene, she dominates Dr. Prince, and she does so to the end of the whole story.

The futility of Sleeping Margaret's instructions as to the best way to get a person out of deep hypnosis gives a good clue to her nature and origin. Her wisdom was the wisdom of popular belief and practice. No one who had any true knowledge of hypnotic phenomena would have given such instructions, and no one having any practical experience would have acted upon them. They served their purpose, it is true ; but they would probably have been equally efficacious if they had taken some other form. Their efficacy depended on the fact that they were a suggestion from within—a counter suggestion to the death sentence pronounced by Dr. Prince, a counter suggestion made strong by the will to live inherent in her being.

Dr. Prince had now discovered three personalities in his patient, namely, Sick Doris, Margaret, and Sleeping Margaret. About a month after the discovery of the last named, what he calls the central secret of the case was disclosed to him by Margaret. "You never saw the *Real* Doris but a very little—when it was all Doris," she said impressively, and went to sleep, adding, "I will wake Doris so that she will be *all* Doris for a little while." And she did so, Dr. Prince adds, though he did not fully comprehend that the clear-eyed girl looking wonderingly about her was the primary personality, and, as such, quite another than Sick Doris.

Still another personality in the case is described by Dr. Prince on grounds that perhaps may be regarded as inadequate. From the beginning of his watching Doris asleep he had at times observed certain somnambulistic phenomena which came to be known as conversation-recitals. Only one side of the dialogue—her own—was recited, the other being represented by pauses. Late in his observation of the case he was led to believe that these recitals were produced by an inchoate but valid personality distinct from the others, and to this personality the name of Sleeping Real Doris was given.

Such are the five personalities of this case in the order in which they were discovered by Dr. Prince. His first acquaintance was with Sick Doris, whom for a long time he took to be the primary personality. Then he found Margaret and Sleeping Margaret. Then Margaret disclosed to him the existence of a Real Doris, different from the Sick Doris. Finally he believed there was still another personality—Sleeping Real Doris, and this belief was confirmed by Margaret and Sleeping Margaret.

When we come to consider these different personalities in the historical order of their appearance instead of in the order in which they were discovered by Dr. Prince, we find that almost all our information is derived from one or more of the personalities themselves. But so consistently, on the whole, do their separate accounts fit in with each other, that we are justified in believing that the history of their origin thus obtained is in some sense true. Yet the story they tell is unique in the records of multiple personality, and there is much in it on which at present it would be hazardous to venture to give any decided opinion. Very briefly ,this story is as follows.

Doris Fischer was born in 1889. She was the youngest child of German parents who lived in poor circumstances in a large American city. Her father was a drunkard, and one day, after a quarrel with his wife, he took up Doris, then three years old, and dashed her on to the floor. The shock to Doris, caused by this quarrel and act of violence, is supposed to have started the series of dissociations which gave rise to the different personalities already enumerated.

Sleeping Margaret, so called because she manifested only when Margaret was asleep, is the chief source of our knowledge of the lives of all the personalities before the case came under Dr. Prince's care. She claimed that she herself was the first to appear. She came during the quarrel between the parents, just before Doris was thrown on the floor. She came as a mature personality, although Doris was only three years old at the time. But there was no outward manifestation of her presence for nineteen years and her existence was totally unknown and unsuspected until Dr. Prince discovered her on January 22nd, 1911.

Mentally, Dr. Prince says, she was the maturest of them all, and impressed him as if she were a woman of forty. In another place, however, he says she "is at least as mature as R. D. is, and the range of her knowledge is greater." Whatever the degree of her maturity may have been, she claimed that she had been the same from the beginning. She professed never to sleep, but she was never " out " as an alternating personality, having control of the whole body, as Sick Doris and Margaret had when they were out. She never took control of the body to any great extent except as regards the vocal organs, and then only when Margaret was asleep, or at a later stage, when Real Doris was asleep. She claimed to persist as a continuous co-consciousness and to know all the thoughts, and feelings, and actions of all the other personalities (except S. R. D.). She said she saw M.'s thoughts directly, those of S. D. through, or reflected from, the consciousness of M., and those of R. D. as reflected from the consciousness of S. D. to M. and again from that of M. to herself. Dr. Prince says she was the only one of the group who was not suggestible.

The advent of Margaret was stated to have taken place a few minutes after Doris had been dashed on the floor. With trifling discrepancies, Margaret and Sleeping Margaret gave the same account of this occurrence. Here is Margaret's own original description of it: "When Doris was three years old I came one night when she was lying on the bed crying as if her little heart would break because her father had thrown her on the floor; well, I made her play with her fingers and toes and finally had her laughing and then she went to sleep." This description implies, I think, that Margaret first came as a co-consciousness and not as an alternating personality, and I have been unable to trace the record, if such exists, of Margaret's first coming "out."

Margaret was in many respects the "Sally" of the Doris case. She grew until she attained the age and capacities of a child of ten, and remained at that stage until, in the course of Dr. Prince's treatment of the case, she began to decline. Finally she disappeared altogether. "She was mentally and emotionally a child of not more than ten years, with some extraordinarily naive notions not usually carried beyond the age of five or six. Her facial expression was strikingly childlike, her voice in speech or laughter that of a young tom-boy, her point of view, mental habits, and tastes, in every way juvenile. . . . She was mischievous, roguish, witty, a consummate mimic, ingratiating, winsome and altogether lovable, as a rule." Margaret was co-conscious with S. D. and R. D., and knew their thoughts, their feelings and their actions, but she knew nothing of S. M. She claimed that her knowledge of S. D. was immediate, while of R. D. it was mediate, reflected as it were from S. D.'s consciousness as from a mirror. Dr. Prince considered her the most suggestible of all the personalities.

From the age of three to the age of seventeen these three personalities existed side by side. Doris (R. D.) and Margaret alternated one with the other, while Sleeping Margaret remained in the subconscious as a silent watcher and guardian of Doris's welfare.

On May 6th, 1906, when Doris was seventeen years old, her mother, whom she adored, died after a few hours' illness. Although overcome with grief, Doris "managed to retain her individuality until she had performed the last offices in her power for her dead idol, whereupon Margaret took her place. Almost immediately thereafter a terrible pain shot through the left cerebral hemisphere, M. vanished, and a new personality, afterwards to be known as Sick Doris, came into the drama."

Sick Doris, on her first appearance, and for some days thereafter, was an infantile personality, at least as regards the content of her mind. She had no memory of anything that Doris or Margaret had ever learnt. She knew no one, she could not speak, nor could she understand words spoken to her. She could walk and handled objects with her fingers, but she hardly knew how to eat or drink. "All affection was gone and all grief; not a tremor remained of the mental agony of a few moments before. She was as one born with an adult body . . . but with absolutely no memory and absolutely no knowledge." But she had a "maturely inquiring mind" and she very soon learned many things. Her progress was rapid after the third evening, when Margaret undertook her tuition. In a week Sick Doris was fairly competent to get along, though she had many difficulties yet to meet.

The Real Doris of the record is in many respects the most elusive and most unsatisfactory of all the personalities described. In the early days of Dr. Prince's observation of the case, Real Doris very seldom appeared, and when she did so, her time "out" was so short that there could have been little to record concerning her sayings and doings. When at a later date she was "out" more frequently and for longer periods, Dr. Prince apparently did not consider it necessary to reveal her character and disposition as fully as he had revealed those of the other personalities. His own affection and esteem for her has blinded him to the fact that the Real Doris of his record entirely fails to win either the interest or the liking of his readers in the way that Margaret, for example, does.

The only detailed account of Real Doris's mental and moral characteristics is given in the opening pages of the main narrative. But it is expressly stated that " this is a sketch of the normal personality functioning unhindered by the other personalities, as is the case continually now that she is cured." Throughout the whole record the Real Doris that appears as an alternating personality, at first fitfully and for short periods, later more frequently and continuously, is explicitly regarded as the primary personality and implicitly as a normal personality. Yet there is plenty of evidence to show that the alternating Real Doris of the record is a hysteric personality with many hysterical stigmata.

The fifth and last personality in the case appeared about a year and a half after the advent of Sick Doris. Margaret was startled when going up a flight of steps and fell, striking her head violently against an earthen crock. As a result of this fall Margaret said "a little crack was made in Real Doris," which led to the somnambulistic conversation-recitals ascribed by Dr. Prince to Sleeping Real Doris. The " crack," however, would seem to have affected Sick Doris also, for some of Sick Doris's memories appeared in the recitals as well as those of real Doris. This personality may be disregarded in our further consideration of the case.

The problems raised by the Doris Fischer case of multiple personality are so many and so diverse that it is well to have some common ground from which we may view them. Such ground may be found in the interest we all have in Psychical Research. But although we all have in common some interest in the subject-matter of Psychical Research, it is not to be supposed that we are all at the same stage of inquiry. Some have already reached conviction in regard to the ultimate object of our quest. Others are still seeking for proof of the occurrence of any supernormal happenings whatsoever. Both groups, however, should find some interest in the Doris case. It would, indeed, seem to provide a good standpoint from which to view the whole field of Psychical Research. From it we may look backwards over the wide field of abnormal psychology, into whose mazes Mr. Myers so patiently led us in the early days of our Society's work; or we may look forward to the still uncharted country whose survey will form the chief work of this Society for many years to come.

Whatever bearing the Doris case may ultimately be found to have on the higher problems of Psychical Research we must be content, for the present, to employ the elementary principles of method which are necessary in every scientific investigation. We must try to arrange our data in some sort of order. The facts must be classified and their correlations with other facts discovered. In doing so we may perhaps be able to reduce the observed facts to more generalized terms, and this is perhaps as far as we can usefully go at present. We may, indeed, indulge in tentative hypotheses, but until we have a much larger number of trustworthy observations than we at present possess, it is unlikely that our formulations regarding the problems of multiple personality will have much value.

Besides the obvious ground of comparison with other recorded cases, there are at least two directions in which we may usefully look when we try to find something with which to compare the facts observed by Dr. Prince. In one direction we find many similarities or analogies between Doris phenomena and the phenomena of Hysteria and Hypnosis. In the other direction we find interesting grounds for comparison of the Doris personalities with the so-called controls of mediumistic trance.

The relations of the Doris case with Hysteria may seem too obvious to be mentioned. From one point of view it *is* just a case of hysteria, and its symptoms show, not resemblance to, but identity with those of other hysterical conditions. On the other hand, it presents so many unusual features that it may be well to understand what we mean by hysteria, before we class all its peculiarities under this term.

Anæsthesia was regarded by Charcot as the great stigma of hysteria, and although it is not now believed to have the diagnostic importance formerly ascribed to it, we may still look upon it as one of the most common features of the disorder and the one best suited for study as a type of hysterical disability. Janet showed that in the anæsthesia of hysteria sensation is not wholly suppressed as it is when anæsthesia is due to organic disease. Although the patient has no supraliminal perception of impressions, such as pinpricks, it can be shown by various devices that perception is still present in some subliminal form. We have in these experiments the simplest illustration of that division or dissociation of consciousness which reaches such remarkable proportions in cases of multiple personality.

Janet applied the principle of dissociation of consciousness throughout the whole range of hysterical disabilities, and it became common to regard hysteria and dissociation as synonymous terms. Every hysterical symptom was due to dissociation of consciousness, and every dissociation of consciousness was evidence of hysteria.

The doctrine of dissociation has been accepted, in a general way, by all competent authorities; but there is no unanimity of opinion in regard to the way in which dissociation is brought about. Janet looks upon dissociation as a merely mechanical splitting of consciousness, a letting go of certain functions because the personality is too feeble to hold on to them. Freud puts in the first line, as a determining factor of dissociation, the mental conflict that ensues when incompatible wishes or desires arise in the mind. The splitting of consciousness is explained dynamically as being due to a conflict of opposing forces within the personality. From the merely descriptive standpoint Janet's work has been the more important, but from the standpoint of interpretation that of Freud has been far more fruitful. Outside the work of the psychoanalysts we have no real understanding of hysterical phenomena, and if dissociated personality be regarded as hysteria its true mechanism may be explicable only when it is submitted to psychoanalytic interpretation.

Hitherto psychoanalysts, so far as I know, have not dealt explicitly with the phenomena of multiple personality; but that these cases can be interpreted on psychoanalytic lines I have no doubt. Many of the data necessary for such an interpretation, in so far as these can be provided by documentary evidence, are to be found in the Doris Fischer record. But even if such an interpretation should be given, there would still be left many important problems,—subsidiary problems, perhaps, from the analyst's point of view, but important problems from other points of view, such as those of Psychical Research.

There is, for example, one matter on which the descriptive work of Janet is more helpful in the consideration of these cases than is the interpretive work of Freud. Janet appeared to demonstrate the existence of *conscious* subliminal activity in his hysterics, and there is no more striking feature of the Doris case than the mass of evidence which points to the reality of the co-consciousness which the various personalities claim. Freud on the other hand denies that co-consciousness ever occurs. In a communication which he contributed to our *Proceedings* in 1912, he said: " I venture to urge against this theory that it is a gratuitous assumption based on the abuse of the word 'conscious.' . . . The cases described as splitting of consciousness, like Dr. Azam's, might better be denoted as shifting of consciousness,—that function—or whatever it be—oscillating between two different psychical complexes which become conscious and unconscious in alternation." But this explanation is not applicable to such a case as that of Doris Fischer, for here we seem to have good evidence of two or more psychical complexes being simultaneously conscious.

Thus for the present it may be more helpful to regard the hysterical features of the Doris case from the standpoint of dissociation as described by Janet, whilst bearing in mind that such a view may not be fundamentally inconsistent with the interpretive methods of the psychoanalysts. Moreover, we may hold that the conclusions arrived at by the use of these methods are, for certain purposes, irrelevant, and, in regard to certain special problems, inadequate.

But if we are to regard all hysterical symptoms as being the outcome of dissociation, we must guard against Janet's implication that every dissociation is evidence of hysteria. We must distinguish between dissociations that are hurtful and those that are indifferent or helpful. It would be well to restrict the use of the word hysterical to those dissociations which result in defects or disabilities. For only in so far as dissociation causes some mal-adjustment to environment can it be looked upon as a disease. We should be prepared to find dissociations that lead, not to defects, but to enhancements of the natural powers; and before concluding that such dissociations must tend to mal-adjustment, it might be well to ask if we know all that is to be known of the environment to which man has to adjust himself.

In man the evolutionary process would seem to be no longer restricted to the struggle for purely biological existence. In the course of cultural development, in the growth of the moral character, conflicts within the mind take the place of the conflicts with foes or circumstances which determine biological or economic survival, and the internal conflict may be so intense that the unity of consciousness is sundered. Such conflicts are in some degree common to all mankind, and if sometimes they lead to dissociation and sometimes they do not, we must suppose that the different results must be due either to differences in the intensity of the conflict or to differences in the inherent liability to dissociation ; or both of these factors may be present and, indeed, both may be dependent upon some common underlying peculiarity of psycho-neural organization. The intensity of the conflict may be the outcome of a moral or æsthetic hypersensitiveness which meets with rude shocks in the actual experiences of life, or from thoughts that arise in the mind in relation to desires whose true meaning and significance are explicable only by reference to more primitive forms or conditions of life. The inherent liability to dissociation must be correlated with some psycho-neural peculiarity which makes dissociation possible.

The capacity for dissociation may be supposed to depend on a plasticity of psycho-neural dispositions which permits departure from habitual modes of reaction. In the earlier stages of evolution this plasticity is exploited solely in the interests of biological survival and is slight in amount ; for so long as the physical struggle for existence is still the dominating factor in evolution, these reactions must become stereotyped along biologically useful lines, and only so much plasticity as is necessary for adaptation to common environmental changes is desirable. Along the lines of growth and integration psycho-neural organization leads to functional and structural rigidity, but some degree of plasticity must always be retained at the growing point.

So long as character is in process of formation there is always a growing point in the structure of the mind. It is at the growing point that plasticity will be found, and the possibility of the occurrence of dissociation may indicate the high-water mark of mental evolution. We speak with respect of persons whose nervous systems are said to be stable; but stable nervous systems are like fossils in the evolutionary process. They record the attainments of the past, but show nothing of the promise of the future. But where plasticity and instability are found, dissociations may occur. Some of these may have survival value in the present; some may have survival value in the future; while some will be inimical to the well-being of the individual or of the race.

With the safeguards to life and limb afforded to the individual in civilized communities it is no longer necessary to have all the faculties continuously alert to every environmental change. The mind may become absorbed in an object to the exclusion of all other sensory solicitations without any danger, and if the psycho-neural organization is sufficiently plastic such absorption may lead to a true, though temporary, dissociation of consciousness. The student or inventor who becomes so absorbed in the object of his pursuit that he loses touch with his surroundings and is oblivious of time and place, may be said to have consciousness dissociated; but he is not therefore to be classed as a hysteric. The poet in his moments of inspiration, the genius of any kind in the full exercise of his powers, is reacting in an unusual way to ordinary stimuli, and his doing so is in part dependent on the psycho-neural plasticity which permits it.

I have said that the occurrence of dissociation is the outcome of a departure from habitual modes of reaction, and that we have no right to conclude that dissociation is always or entirely disadvantageous. It may, indeed, be argued that in some cases and in some ways it may be beneficial. Dr. Schiller says, in his review of the Doris Fischer record: " So-called ' dissociations ' are not mechanical processes, even when they are excited by bodily injuries, nor are they wholly morbid. What stands out very clearly in Doris Fischer's case is that they are really *teleological*—

protective reactions to alleviate the burden of living."[1] This is in substance the teaching of psychoanalysts. The neurosis is a flight into sickness in order to escape from a reality that is unbearable. Its teleological character, however, is restricted to the avoidance of mental pain, and it is doubtful if any psychoanalyst would admit that a split-off secondary personality is ever an improvement on the normal "whole" self. The most he would admit is that a secondary personality may contain much that is estimable which ought to belong to the normal self. Thus he would say that the Real Doris would have been much improved by the incorporation in her character of those traits which made Margaret so lovable—traits which really belong to Doris and have been unnecessarily repressed.

The protective nature of dissociation, in the sense that it is a defence reaction against unbearable ideas, is admitted by psychoanalysts just so far as they consider dissociation to be a consequence of repression, but some ambiguity may be found to arise from assuming that dissociation of consciousness can always be directly correlated with repression. The occurrence of a splitting of consciousness in hysteria is admitted by both Janet and Freud, but on Janet's hypothesis the splitting is due to an inability of the self to assimilate certain ideas and feelings which ought to belong to it. On Freud's hypothesis the dissociation is due, not to an inability but to an unwillingness of the personality to accept or acknowledge certain experiences as its own. Yet it must be observed that besides this difference in these two explanations of the origin of dissociation, there is, or may be, a further difference in respect of the mental material on which the dissociation is supposed to bear. In a "hysterical" paralysis of the arm, on Janet's hypothesis, the ideas and feelings related to the use of the arm have become dissociated from the personal consciousness. But according to Freud dissociation in such a case bears primarily on a totally different system of ideas. It bears on some wish-formation which, after being dissociated by repression, becomes " converted " into this particular physical disability. But the motor disability is itself a dissociation, as Janet has shown, and it is not a dissociation directly due to repression. It seems to depend on some constitutional peculiarity—an " adaptation for conversion "—that is not always present.

---

[1] *Proceedings S.P.R.*, Vol. XXIX., p. 395.

When a conscious wish is repressed it may be said that a dissociation occurs in so far as something that was in consciousness has become split off from it ; but when the repressed wish tries to become conscious again and succeeds only by becoming converted into a paralysis or an anæsthesia, a further dissociation would seem to occur ; for here again something that was in consciousness becomes split off from it. As a dissociation of consciousness the repression of a wish may be almost negligible, but when the repressed wish becomes converted into bodily paralysis or anæsthesia there is no mistaking the gap in the field of consciousness which occurs. On the other hand, repression may involve so great a section of consciousness that the presence of dissociation may be made manifest by the amnesia which it entails ; and the repressed material may at intervals force itself to the surface and dominate the organism in somnambulistic attacks or as an alternating secondary personality.

Even if it cannot be maintained that dissociation is ever a wholly beneficial process, it is noteworthy that even in admittedly hysterical dissociation we sometimes find evidence of increased capacity in some directions combined with disabilities in other directions : but it is the disabilities and not the unusual abilities that justify the diagnosis of hysteria. And we may get dissociations in which the disabilities are negligible and the enhanced powers or the unusual modes of functioning are the only noticeable features.

In illustration of this, reference may be made to the considerable number of persons who have the power of producing automatic writing. Such " automatic " activities must be regarded as the work of dissociated states of consciousness. We cannot look upon them as true automatisms; such a view seems quite untenable. Nor can we regard them as being evidence of hysteria, for the persons who can produce automatic script are often far from being hysterical in any useful sense of the word.

There is, moreover, a considerable body of evidence in support of the belief that dissociated activities of this kind are sometimes accompanied by the manifestation of supernormal powers, such as telepathy or those mediumistic phenomena which are thought by some people to afford proof of spirit communication.

If we accept the possibility of telepathy, and if we find that telepathy is observed in connexion with dissociated states more frequently than with states in which no dissociation is suspected, we must conclude that we have here an instance of dissociation leading to enhancement of the natural powers. Whether such manifestations of supernormal powers are necessarily accompanied by defects in other directions must be determined empirically; we are not entitled to conclude on theoretical grounds that it must be so. And we know that in individual instances of automatic writers or trance mediums, it is often extremely difficult to justify any such conclusion. They may seem to be as well adapted to life as their fellows.

Here, moreover, comes in the question of our knowledge of the environment to which man has to adjust himself. If there is a transcendental world and if these dissociated states are a means of getting into relation with it, we should perhaps regard these individuals, in this respect at least, as being more fully adjusted to their environment than ordinary men and women are.

When we consider the later stages in the evolution of human personality we may see that man's environment extends beyond his physical and social surroundings. His intellectual aspirations are not limited by utility, his emotional needs are not satisfied by intercourse with his fellows, his moral nature transcends the obligations of civic duty and social service. The struggle for existence is no longer confined to the interaction between the self within and the not-self without, but is transferred to the very centre of the self as a struggle between the elements which enter into its construction. The relative dissociation of concentrated thought may be a biological gain, the repression of a wish that is incompatible with the moral nature may be a victory for the struggling personality, but the paralysis of a limb, although it may be a successful means of defending the personality against an unbearable idea, is biologically a failure. Personality may develop at the expense of the bodily organism, but biologically it must not. For although the struggle of conative trends within the self may be necessary for the evolution of the moral consciousness, the older struggle for existence of the whole organism can never be abrogated. Hysterical symptoms may be regarded as the outcome of dissociative processes that take place at the growing point in the development of personality and are biologically failures. When dissociation is biologically helpful, or in no way injurious, we may suppose that we are witnessing phenomena which point the way to the future evolution of mind in man.

It might be supposed that in the Doris case examples of hypnotic phenomena would be difficult to find, for Dr. Prince tells us that his experience on the night he discovered Sleeping Margaret "determined the permanent exclusion of hypnosis in the after conduct of the case." But anyone who reads this case, and fails to identify with hypnotic phenomena many of the incidents therein recorded, will be apt to misconceive the true nature of these incidents and to regard them as more wonderful or more unusual than they really are.

I open the record at random to look for an example of the kind of incident I have in mind. My eyes fall immediately on the following passage: "at about 2 p.m. I suggested to M. that she close her eyes and sleep. She laughed and looked at me with an expression which showed that she knew what I was after. She did not seem inclined to close her eyes so I began to say, 'You are sleepy. Your eyelids are heavy,' etc., and the lids dropped and in a minute she was asleep."

Or take the following incident: "I took R. D. to a dentist to have some teeth filled. . . . As soon as she was in the chair I took her hand and directed her to close her eyes, but this she seemed unable to do. The moment the work began she went to sleep. . . . She continued unconscious and motionless until two teeth had been filled, then M. awoke. I put her to sleep by the suggestion process, and a third cavity was bored."[1]

In the light of such incidents and many others of a similar kind, I confess I do not know what Dr. Prince means when he says that he did not employ hypnotism in his treatment. For he was on these occasions employing the most usual method of inducing hypnosis, and was as truly a hypnotist as was Liébeault or Bernheim when they introduced this method more than thirty years ago.

But the knowledge that Dr. Prince actually used hypnotic methods is hardly necessary. The hypnotic character of many of the phenomena stares us in the face on almost every page of the record. And if we fail to realize that between Dr. Prince and his adopted daughter there was at all times the same *rapport* as exists between the hypnotist and his patient, much that is familiar or commonplace may seem obscure and mysterious.

---

[1] Cf. the cases of *self-induced* anæsthesia, while undergoing dental treatment, of Mrs. Thompson and Mrs. Verrall, both automatic writers (*Proc. S.P.R.*, Vol. XVIII., pp. 107–111).

It is not only those incidents that may have been due to suggestion, consciously or unconsciously given by Dr. Prince, that reveal the hypnotic character of many of the Doris phenomena. Every suggestion from without, before it is efficacious, has to be "accepted," and thus becomes really a suggestion from within. This is probably true of all hypnotic suggestion. It is demonstrably true of suggestion in trained hypnotic subjects. For in trained hypnotic subjects we have a sort of new integration of consciousness at the hypnotic level, which is practically an incipient secondary personality—a personality, capable of independent judgment, on whose goodwill the success of all suggestion from without depends.

If a person be deeply hypnotized at the first attempt and a suggestion be made that he will perform some simple action at a specified time after awaking from hypnosis, the action will be duly carried out although there is no conscious recollection of the suggestion, and its performance will be characterized by all the peculiarities of suggested post-hypnotic acts. Such suggestions are usually given in the form of commands, and the popular notion of hypnotic compulsion is mainly derived from the witnessing of such experiments. If, however, this same person be frequently hypnotized, and if during hypnosis he be talked to, and encouraged to talk, as if he were in the ordinary waking state, it may then be said that we are dealing with a hypnotic personality rather than with a hypnotized person. Such a personality may show no difference from the waking personality except as regards memory. In the waking state all the events of the hypnotic state are forgotten, while in the hypnotic state all the events of the waking state are remembered. If now a suggestion, to be fulfilled after hypnosis, be given, it is not necessary to assume any tone of command. It may be put in the form of a request, and, if it is assented to, its fulfilment will be indistinguishable from an ordinary post-hypnotic act; or the choice of the act to be performed may be left to the hypnotic personality, and the hypnotist may be left in ignorance of the action determined upon. Yet here again its fulfilment, after hypnosis, is indistinguishable from an ordinary post-hypnotic act, and the subject himself, in the waking state, may regard it as having its origin in a suggestion from the hypnotist.

It may thus be seen that any idea or intention arising in the hypnotic stratum of consciousness, whether spontaneously or by suggestion from without, may work itself out in the waking state in ways indistinguishable from those that are characteristic of post-hypnotic suggestions. The personality formed at the hypnotic level has, therefore, what we may call suggestive power over the personality at the higher level; and I would assert that when there are several personalities in co-conscious series, whether they are artificial products or have arisen spontaneously, this same relation subsists between them all. Any idea arising in or entering into the mind of a co-conscious personality may have suggestive power over the personalities above it in the series—that is to say, personalities to whom it stands in the hypnotic relation of knowing but being unknown by them.

The importance of this conception in its application to the Doris personalities is most apparent when we consider the part played by Sleeping Margaret in the therapeutic management of the case. Dr. Prince says: " She was my chief coadjutor in the case, though Margaret was also generally anxious to help, studied the progress of R. D. and gave valuable information. But Sleeping Margaret studied the interior situation unremittingly, watched the result of my experiments and reported thereon, suggested measures which often proved of great importance, and made predictions as to the development of the case which were nearly, not quite, always justified by the event." Dr. Prince says Sleeping Margaret was his chief coadjutor. I am inclined to think she was his commander-in-chief, while he was her hard-working chief-of-staff.

Successful prediction of the course of the illness is a common feature in hysteria when the dissociation is at all profound, and especially when anything of the nature of a secondary personality has developed. The usual explanation of this—and, so far as it goes, no doubt the true explanation—is that the prediction is a self-suggestion, a suggestion from within, whose fulfilment brings its own verification. And I would maintain that the predictions of Sleeping Margaret, and the measures recommended to Dr. Prince by her, brought about their own fulfilment because they were examples of that suggestive power which a co-conscious personality can bring to bear on personalities to which it stands in hypnotic relation.

It is only by keeping in mind the remarkable results of suggestion in dissociated states and the preponderating part played by suggestion from within rather than from without, that we can bring any order into the multifarious phenomena of this case. One unique feature, and one which to me seems inexplicable except in the light of these considerations, is the fate of the secondary personalities in the process of Doris Fischer's restoration to health.

Sick Doris, immediately after being installed in Dr. Prince's household, and Margaret at a later date, began to decline in their faculties and powers; and the decline took the curious form of a gradual retrogression towards childhood and infancy before they finally disappeared.

Sick Doris was the first to be affected by the change of environment brought about by the removal from her old home. She began to lose her memories and to be "out" less, while her lost memories became absorbed by Real Doris who now began to come more frequently, and to stay longer, as an alternating personality. As Sick Doris's memories disappeared her manner changed, becoming more cold and reserved. Her bodily anæsthesia deepened until she could neither feel, taste, nor smell. Her vision gradually narrowed and shortened. She grew more childish and apathetic, she became unable to read, and her vocabulary diminished until she had only a very small stock of words. She finally reached complete mental infancy, not only as to the content of her mind, but also as to her power of thought. In the end she could not walk, stand, or sit, and when she could retrogress no farther she just ceased to come. After being the dominant personality for nearly five years she made her last appearance four months after Doris went to live in Dr. Prince's home.

The getting rid of Margaret was a much slower process, but it followed the same general course as that followed by Sick Doris. The methods adopted to facilitate her decline and departure varied in many ways from those found to be efficacious with Sick Doris, but the final result was in its main aspects the same. In the case of Margaret, however, the regression to childhood was more definite and precise in regard to details, and the return to childish ways of thought and speech gave evidence of being a return to the ways of the life which she had actually lived as an alternating personality in Doris's childhood.

This was impossible in the case of Sick Doris, for *she* had never been a real child in her own personality. When she first appeared she was, it is true, an infantile personality as regards the content of her mind, but in her regression she does not seem to have retraced her steps through this infantile life. It seemed rather as if the forces directing the process of her extinction had led her backwards through an abstract sort of infancy which was not the infancy of anyone in particular. With Margaret it was different. It appeared to be her own childhood she was retracing.

Moreover, there was this further difference, that when the mental regression of Margaret had brought her to the age of five, she disappeared and came no more. She never became truly infantile as Sick Doris had done.

The fate of Sick Doris and of Margaret had been the subject of much speculation by these personalities themselves and also by Sleeping Margaret and Dr. Prince. At the beginning of his treatment of the case Dr. Prince regarded Sick Doris as the primary personality, and his efforts were directed towards reinstating her as the permanent personality and banishing Margaret. He sometimes told Sick Doris that Margaret appeared to be weakening and that eventually she would be got rid of. But Margaret was of a different opinion. She said she knew that Sick Doris would go first and teased her by telling her so. Sick Doris was somewhat worried by Margaret's assertions, but believed that Margaret would be the one to go.

At an early period of the treatment Dr. Walker, of the University of Pittsburg, was consulted on this matter. He gave it as his opinion that Sick Doris would be assimilated with Real Doris, but that Margaret would never blend. At first Margaret's opinion of her own fate was that she would join up with Real Doris. " We are going to be one," she said. But three days after Dr. Walker had expressed his opinion she said, speaking of Sick Doris's decline : " We don't want her, any way. ME NEXT !—loudly and archly—isn't that right, papa ? "

Two days later Sleeping Margaret enters into the drama for the first time since the night of her discovery. She asserts that Sleeping Margaret and Margaret are in a sense one, and she expresses the opinion that " both Margarets will eventually disappear. As to Sick Doris she is disappearing, ' going into Real Doris,' has in good part already gone." About a week later she informs Dr. Prince that " Margaret is getting to be a little child. She always was a girl, but she is getting younger and younger. I think that is probably the way that she will disappear. (Do you think she will come to have the mind of a baby ?) Probably not really a baby, but the mind of a very small girl." At the same time, in reply to the question : Who do you think will go first, you or Margaret ? she replied : "I don't know ; probably we will go together." (How do you think that S. D. will go ?) "Why, she is going now. Don't you see that she is going ? She remembers hardly anything. . . . She will get weaker and weaker, and all of a sudden she will be gone and not come back." Some weeks later when Mrs. Prince said something about Margaret blending with Real Doris, Sleeping Margaret spoke up decidedly, "No, she will disappear. The difference is that S. D. was separated from the R. D. (And wasn't M. ?) No, she just *came*."

Thus early in the treatment of the case the different personalities had fairly clear notions of the course they had to run. At a later date Sleeping Margaret, however, seems to have changed her mind about her own future and also about her own nature.

The way in which Sick Doris and Margaret disappeared is, so far as I know, unique in the records of multiple personality ; and although we may agree with Sleeping Margaret that no two cases are exactly alike, it would seem very unlikely that this mode of disappearance of secondary personalities should not have been met with before, if it is an inherent or natural peculiarity of the Doris Case. I must confess that I am inclined to regard the whole course followed by Sick Doris and Margaret in their disappearance as having been largely brought about artificially—in the sense that their mode of going was not a necessary part of their going. Their going was necessary if Doris was to be cured, but they might have been got rid of in some other way. Not that I would decry Dr. Prince's management of the case. On the contrary, I think no one can read his record without a profound feeling of admiration for his patience and his skill. All I mean is that if Dr. Prince, and especially if Sleeping Margaret, had by any chance come to have had different notions as to the course to be run and the measures to be adopted, then an equally good end might have been attained though the way might have been different.

It is not to be supposed that suggestion from without is all that is necessary in a case such as this. Secondary personalities, although they may be suggestible enough in some respects, are often impervious to suggestions from without directed towards their own exorcism, or even towards the disappearance of symptoms which seem to be within their control. Yet when, by any means, they can be got to predict the disappearance of morbid symptoms, these symptoms disappear in the same sudden and unaccountable way as do similar symptoms in ordinary hysteria in response to suggestion from without.

This peculiarity was forced on my attention in a case of hysteria with incipient multiple personality which I reported to this Society some years ago.[1] I was struck by the unequal success of suggestion in this case. Some symptoms disappeared instantly at the first suggestion; others seemed to be quite uninfluenced, no matter how often, or how impressively, appropriate suggestions were given. It soon became evident that the symptoms which were easily relieved were those which, in her waking state, the patient asked me to relieve, or those to the relief of which I had gained her free and unqualified assent during hypnosis. Why she came to desire the relief of one symptom more than another I do not know; but it was clear that once she got the idea that I could remove it, the symptom in question always disappeared, and if she did not have such idea it did not. Sometimes I expressed a doubt as to my ability to remove it, but what she predicted always came to pass.

---

[1] *Proceedings, S.P.R.*, Vol. XXVI, p. 286 and Chap. II of this book.

Thus so far as suggestion affects the course of cases of this kind it would seem essential that it should be, in some sense, a suggestion from within. The idea of the course to be followed must somehow arise in, or gain admission to, the patient's mind, and act with suggestive force at some hypnotic level. The possibility of such an occurrence in cases of co-conscious secondary personalities is shown by the case I have recorded, and it may be useful to bear such a possibility in mind in connexion with the Doris case, especially with regard to the regression to child-like states which preceded the final disappearance of Sick Doris and Margaret.

In continuing our comparisons of the data supplied by the Doris case with those derived from other sources, we are led beyond the individual features presented by it to a comparison of the case as a whole with other cases of multiple personality. We may try to find out if knowledge of the Doris case helps us in any way to classify these cases, or if we can find a place for it in any classification we may provisionally have adopted.

In attempting to classify cases of multiple personality we start with the assumption that in every instance we have to deal with some sort of dissociation or division of the self. Until such an assumption is clearly shown to be false or inadequate, we are not justified in ascribing to any other source the secondary personalities which they may reveal. We must suppose that such unity and continuity as the self ordinarily displays has in some way become disrupted, and a basis of classification may be found if we can discover the lines of cleavage along which such disruptions most commonly do or may take place. To know where to look for these lines of cleavage we must know what sort of unity the self has and in what it consists.

In a previous chapter [1] we have drawn a distinction between the unity of consciousness and the unity of the self, and we there saw that there are at least two directions from which we may approach the problem of classification of secondary personalities. From one point of view we may regard them as breaches in the continuity of the stream of consciousness. From another point of view they appear as disturbances of that relative unity of the self which we know as character.

In Chapter III I tried to divide all secondary personalities into two great groups, the basis of division being the memory relations existing between the different selves. In the first group of which the B_1 and B_4 personalities of the Beauchamp case are examples, there is reciprocal amnesia between the different selves. B_1 had none of B_4's memories and B_4 had none of B_1's. When B_4 succeeded B_1 as an alternating personality, B_4 knew nothing of what B_1 had been doing during the time that B_1 was "out"; and when B_1 succeeded B_4, B_1 was equally ignorant of what B_4 had been doing.

In the second group, of which "Sally" of the Beauchamp case is an example, the amnesia occurs in one direction only. B_1 did not know Sally, but Sally knew B_1. When Sally gave place to B_1, B_1 came on the scene quite ignorant of what Sally had just been doing, but when Sally succeeded B_1 she had full knowledge of what B_1 had been doing. Moreover, Sally claimed to have been present as a co-conscious personality, distinct from B_1, during the period of B_1's emergence, and to have been aware, at all times, of B_1's thoughts and actions. Secondary personalities of this kind may be referred to as belonging to the co-conscious type.

On reading the Doris record we are at once struck by the fact that all the personalities, with the negligible exception of S. R. D., may be arranged in a co-conscious series. If we regard the personalities in such a series as having different thresholds we may say that the personality formed at a higher level is always amnesic for the personalities that may occur below it, while the personality formed at a lower level is always co-conscious with those that may occur above it. Thus, in the Doris case, as we have seen, S. M. knew all the thoughts and feelings and actions of all the other personalities. M. was ignorant of S. M., but knew all the others above her in the series. S. D. had no direct knowledge of M.'s experiences and was also ignorant of S. M., but she knew the experiences of R. D. R. D. had no direct knowledge of any of her secondary states.

---

[1] Chap. IV, p. 147.

Divisions of the self based upon amnesia and co-consciousness, although interesting to the psychologist, are not the ones that appeal most strongly to the ordinary reader. So long as a man's character is but little altered, a gap in his memory of his own doings excites little wonder or comment. But if he shows any marked change in his character and conduct, whether it be accompanied by loss of memory or not, his friends will say he is " a different man." And so it may be that, in the history of Doris Fischer, many will be more impressed by the differences in the characters of the personalities than by the peculiarities of the memory relations subsisting between them. It would seem very desirable that some classification of secondary personalities, based upon character rather than upon memory, should be attempted.

The most superficial examination of ourselves or our fellows will reveal to us that when we speak of unity of character we are referring to an ideal unity, and that in actual life we know hardly any but a relative unity in this respect. We are all subject to moods in which our capacities and achievements fall short or surpass those that we regard as pertaining to our true selves. At times we may follow interests and pursue ends that are inconsistent or incompatible with our main purposes, and only the stern necessities of life may debar us from giving rein to these different sides of our character. For most of us some limitation of interests and systematization of purposes must be submitted to.

In James's list of the empirical selves which he, with some reluctance, put aside,[1] no mention is made of one which, consciously or unconsciously, is common, perhaps, to all mankind. James may have been of too robust a nature ever consciously to feel the wish to be a child again; but weaker spirits, when they find life hard, know well the craving for the dependence and irresponsibility of childhood. The self that does not want to grow up may be detected in some of the most lovable of our adult friends; and when dissociation occurs we need not be surprised to find that sometimes a child-like secondary personality is revealed.

Several examples of this may be found in the records. "Twoey" and "The Boy" in the case of Alma Z.[2] were child-like personalities. More than one of the secondary states of Mary Barnes[3] exhibited childish traits. Mr. Hanna,[4] in his secondary state, was described as being "pure and innocent as a child." The secondary state of Mary Reynolds[5] was child-like in its cheerful gaiety and boisterous love of jests. Sally, of the Beauchamp case, was incorrigibly a child. And now in the Doris case we have Margaret, one of the most fascinating and lovable of all the child personalities revealed in these states. Further, it may be noted, that the "controls" in mediumistic trance have not infrequently had the semblance of being child personalities.[1]

---

[1] *See* Chap. IV, pp. 145, 146.

[2] Osgood Mason, *Journal of Nervous and Mental Diseases*, September, 1893.

[3] Abert Wilson, *Proceedings S.P.R.*, Vol. XVIII, p. 352.

[4] Sidis and Goodhart, *Multiple Personality*.

[5] W. James, *Principles of Psychology*, Vol. I, p. 381.

Thus, we might classify secondary personalities according as they are child-like or grown-up, but it is doubtful if such a division would be very helpful. There are perhaps more fundamental lines of cleavage to be discovered along which disruptions of the unity of the self may take place. Some of these have been referred to in Chapter IV, namely, those which are brought to light by regarding character as a whole to be made up of an intellectual character, an emotional character and a practical character.

The Doris case seems to show some evidence of disintegration along such lines of cleavage. Sleeping Margaret was the embodiment of the intellectual character. She was cold and unemotional and she never did anything. She appeared to be of a " highly analytical and philosophical mind," she was " never known to wander in her speech or to oscillate in the clearness of her understanding." " Her facial expression was usually that of philosophical calmness, though she would often smile sedately, or even break out into laughter."

If Sleeping Margaret was all intellect, Margaret was all feeling and emotion. She was demonstrative and affectionate. Though amiable as a rule she had occasional fits of sullenness and even of rage. She was a child of the emotions with the emotions of a child. She never developed beyond the age of ten, but it was her intellectual expansion that first became curtailed. At one time she used to assist Real Doris with her lessons, but two years before the schooling was over she ceased to help because the exercises had become too advanced. She had the emotional character's dislike of monotony and restraint. The Real Doris of those schooldays had no easy time, for incessantly there emerged in her consciousness the clamours of Margaret, " Come on ! let's go out ! " or Margaret would come as an alternating personality and cut some ridiculous caper which set the room in a giggle.

---

[1] *E.g.*, the " Feda " control in Mrs. Leonard's trance. *See Proceedings S.P.R.*, Vol. XXX, p. 339, and Vol. XXXII, p. 344.

If Sleeping Margaret was the intellectual side and Margaret the emotional side of Doris, then Sick Doris was preponderatingly the practical side. After her advent she was the only one of the group who appeared to *do* things. For five years she was the dominant personality who bore the brunt of all the hardships and the excessive and prolonged exertions which the poverty of the family entailed. She was characterized by woodenness of expression. She was lacking in humour, in conceptions of the abstract, and in other respects. To the end she was lacking on the side of the affections, but she was a slave to her narrow conceptions of duty.

This way of looking at secondary personalities may seem fanciful and not very profitable. And indeed it is likely that more commonly we should find the line of cleavage running through the emotional and practical characters, which are hardly separable, rather than between them. Could we do so it would be consonant with our most recent knowledge of the nature and source of psychical dissociation. Everything points to the emotional life as being the source from which the disintegrating forces are derived. Here is to be found the subterranean fire which in volcanic action bursts the bonds that keep the self a unity of endeavour.

The emotional conflict that ensues when incompatible wishes arise in the mind may be, as the Freudians maintain, the one constant factor in all psychical dissociation. But to search for the lines of cleavage which may thus be established would necessitate a long and arduous examination of the unconscious roots of the emotional life. The knowledge we already possess on this matter has not yet, so far as I know, been applied to well-marked cases of multiple personality, and this is neither the time nor the place to attempt it ; but when it is done we shall perhaps be within sight of some basis whereon to found a scientific or natural classification of these states.

In the meantime we may make use of provisional classifications of a more superficial kind, and we may here, as in other matters, arrange our data in groups determined by the end we have in view. We have good authority for saying that each science or art may form its classification of things "according to the properties which fall within its special cognizance, or of which it must take account in order to accomplish its peculiar practical end." As students of Psychical Research we may ask whether secondary personalities show any peculiarities which fall within our special province. If they do, we may use these peculiarities as a basis for classification.

In many of the recorded cases of multiple personality some evidence of the occurrence of supernormal phenomena has been given, and if there are any cases in which there is no such evidence, then we may divide all cases of multiple personality into those which provide evidence of the supernormal and those which do not. Or, more conveniently, all the secondary selves revealed in these cases may be divided into those that give evidence of possessing supernormal powers and those for which no such claim can be made.

That in the cases hitherto recorded some apparently supernormal phenomena have been observed cannot be denied. In some instances the prejudice of the observer has almost blinded him to their occurrence or has led him to record them only shamefacedly in a footnote. In other instances his credulity has caused him to see evidence of spirit possession or obsession in the common symptoms of hysteria as well as in less usual phenomena. In the earlier records of the Doris case we are fortunate in having had an observer who, if not trained in the methods of science, was at all events apparently scrupulously careful and unbiased. Towards the end of his conduct of the case Dr. Prince was undoubtedly more favourably inclined towards spiritistic hypotheses ; and in the observations of Dr. Hyslop, set out at great length in the third volume of the record, we recognize the work of a spiritist whose views are, I imagine, of an extreme kind.

The incidents recorded by Dr. Prince, of which some supernormal explanation may be called for, are numerous, but not many of them come up to the evidential standard required by our Society. Dr. Prince often has to admit, about some particular incident, that taken by itself it cannot be regarded as evidential, and that it has to be read in the light of other similar incidents in other parts of the record. This is a procedure we are only too prone to adopt in the investigation of the supernormal. As rule of method it is probably fundamentally false. A collection of half-truths can never prove the whole truth about anything. The accumulation of doubtful cases would rather tend to magnify the doubt.

All the personalities in the Doris case are said to have had supernormal experiences. The Real Doris claimed that when she was quite small she used sometimes to see things which afterwards came true. When she was away from home, at work, she sometimes got the impression of seeing her mother doing something, and when she got home at night would learn that her mother had been doing that thing just at the time she saw her. The last experience of the kind was on the day before her mother died. She saw, " pictured in the glass panel of the door," her mother lying on a lounge with her face turned towards the wall. The vision was repeated three times, and at last Doris became alarmed and went home. She found her mother in the position foreseen in the vision, very ill and half-conscious. She died a few hours later.

After the advent of Sick Doris the Real Doris appears to have lost this clairvoyant faculty, but she was still subject to auditory and visual hallucinations. On one occasion she said she was sitting in the hen-yard holding a chicken, looking down at it. She saw a shadow, looked up, and saw her dead mother, just as plainly as she had ever seen her, dressed in a calico dress which she wore when Doris was a child about eight years old. The occurrence of this vision was corroborated by Margaret and Sleeping Margaret, but, as Dr. Prince says, " of course this isn't evidence."

Sick Doris not infrequently during her first year had a hallucination of the mother standing or walking at her right side. Sometimes she felt a touch, or she became otherwise conscious of a presence, and turned, only to get a fleeting glimpse. Sleeping Margaret said that " S. D. had these apparitions, R. D. never. S. D. never had seen the mother living, yet she saw her as she looked in her house wrapper. Perhaps it was from M. thinking a great deal about the mother."

One clairvoyant incident in which S. D. was the percipient is recorded in some detail. " (What are you thinking about ?) Something I would like to ask about Adelaide. (Well, ask it.) But it is silly . . . I would like to find out if she was looking into a shop window between one and two o'clock to-day. I imagined she was. It must have been after quarter past one. She was dressed in blue and wore a turban. Her back was turned and she was stooping and looking at something in a dry-goods store window. I don't know what it was, but it seems as if it were something like a cushion."

In the evening Dr. Prince called up Adelaide by telephone. " (Were you out between 1.15 and 2 this afternoon ?) Yes. (Where did you go ?) Let me see. I went to a drug-store. (How were you dressed ?) In a blue suit. (Did you wear a turban ?) Yes. . . . (Did you look intently into a shop window ?) Yes, I believe I did. (What kind of a shop ?) A dry-goods store. (Was it a cushion that you were looking at ?) I believe so—yes." On the following day Adelaide was seen by Dr. Prince and made a statement about her visit to the drug-store. On the way she said she had stopped and examined a pillow-cushion in a dry-goods shop window. She had almost forgotten the fact when Dr. Prince called her up, but afterwards recalled it distinctly.

It is unfortunate that corroboration of the veridical character of S. D.'s vision was obtained in response to so many leading questions. Dr. Prince says he had to ask them " to recall so trivial an incident as looking into the shop window." But even so, they might surely have been worded less suggestively than " Did you wear a turban ? " " Was it a cushion that you were looking at ? " For evidential purposes it is probably better to fail to get corroboration at all than to get it in such a way.

The majority of the supernormal incidents in the case are connected with Margaret. She is the only one who showed what appears to have been genuine telepathic power. One of the best examples is that in which she told Dr. Prince : " You wrote to a man named Prince to-day—to Dr. Prince. . . . You wrote about Doris. . . . You asked him how some one was getting on." The facts were that Dr. Prince had, that afternoon, without acquainting anyone with his intention, written to Dr. Morton Prince for the first time. He wrote chiefly about Doris. He did not ask how anyone was getting on, but he did very distinctly debate in his mind whether to ask him if Miss Beauchamp was still mentally stable. He took pains to make it impossible that anyone should see him write either the letter or the address on the envelope, mentioned to no one that he had written, and while alone put the letter where no one could possibly get at it.

When Margaret made announcements of this kind it was always after she had gazed steadily, with a look of interested amusement, into Dr. Prince's eyes. She claimed that she saw, not what he was consciously thinking at the moment, but what was " passing like a parade down underneath."

On another occasion Margaret, who had been kept in ignorance of the existence of Sleeping Margaret, surprised Dr. Prince by stating that she knew there were three personalities, and that Sleeping Margaret was the name of the third one. She said she saw it in his thoughts. But the fact that this knowledge was in the possession of S. M. robs this instance of all evidential value so far as telepathy between Margaret and Dr. Prince is in question.

An example of what used to be called " travelling clairvoyance " is recorded of Margaret. She had claimed that she could leave Doris and go back to her old home and see what was happening there. Dr. Prince asked her if she could go anywhere else and she said she could " if Doris knows the people." So Dr. Prince asked her to go to the house of a Mr. S.—" the first house after a big one on the left " in a certain avenue. When she " came back " she reported : " I went into the hall. I think it was the right house, the second from Colorado Avenue on the left. (Yes.) I only saw a little girl, going through the hall. Her hair was cut bobbed, and she had a ribbon on one side. I could see into the dining-room, and saw dishes on the table. There was no one else. I was scared and did not go into any other part of the house,—just the hall where the little girl was. (Was there any food on the table ?) No, just dishes."

Next day Dr. Prince called up Mrs. S. and ascertained a number of facts which were favourable to the view, though not very conclusive, that some clairvoyant faculty had been in operation. One of these facts was that " Marie did . . . pass through that hall alone at just about the time of M.'s alleged vision." At a later date Margaret declared that " she made a mistake and entered the wrong house, but that the little girl whom she saw was really Marie ; that she had seen her since and recognized her."

Afterwards Sleeping Margaret stoutly affirmed the same. Here Dr. Prince leaves the matter. He seems to have made no effort to find out if Marie had passed through the hall of this second house about the time of M.'s alleged vision. He was becoming inclined to accept any declaration of Sleeping Margaret as good evidence which needed no corroboration.

Although Margaret is the only one who gives good evidence of possessing supernormal powers, most readers of the record will come away from it, with the impression that Sleeping Margaret is the source, more than any of the other personalities, of the supernormal atmosphere which pervades the story as a whole. Yet when we try to find out why this should be so, we find it difficult to explain. Apart from the claims she made, towards the end, as to her own nature and powers, there is little in the record to suggest that she needs any supernormal explanation. But there is good evidence of Dr. Prince's growing belief that Sleeping Margaret was something supernatural, and this belief is subtly suggested to the reader throughout hundreds of pages of a very engrossing story. In the end one is almost ready to believe, with Dr. Prince, that Sleeping Margaret is a spirit.

When she first began to talk about herself, Sleeping Margaret seemed to think that she and Margaret were in some sense one, and, consequently, that when Margaret went she would go too; but as time went on she made many assertions about herself which are incompatible with her earlier statements. At first she implied that there was, to begin with, a very close relation between herself and Margaret, if, indeed, they were not one and the same personality, but that they had become "separated" after Doris came to live with Dr. Prince. Later she claimed that she came as a mature personality when Doris was three years old. But when Dr. Prince asked her to explain how she could have come from baby Doris and have a mature mind, all she could say in reply was, " Well, Margaret was brighter than Real Doris." Her new claims were obviously so much opposed to her original statements that she seemed embarrassed when the question of her own origin and status was broached, and for a long time she either denied knowledge on these points or refused to discuss them.

Dr. Prince was greatly puzzled to account for Sleeping Margaret's character and powers, and on November 10th, 1911, he suggested to her that perhaps she was a spirit. This she strenuously denied, and she persisted in her denial for many months. During the first period of his investigation of the case Dr. Prince would seem to have had no partiality towards a spiritistic interpretation of any of the phenomena. But in September, 1911, Dr. Hyslop paid him a visit and examined Doris. From this time onward Dr. Prince's attitude appears to have undergone a gradual change, and he became obviously more disposed to believe that Sleeping Margaret was some kind of spirit possession.

This change in Dr. Prince's attitude may not have been without effect on the opinion of Sleeping Margaret herself. In her early references to her own going she did not appear to make any distinction between the nature of her own final disappearance and that of Margaret. But as time went on her remarks on this topic were consonant with Dr. Prince's growing opinion that she was not a mere secondary personality in the sense that Sick Doris and Margaret were. In June, 1913, she said : " I shall go a day or two before Margaret does. . . . I shall be in sight of her [R. D.] after that until I know that she is safe. . . . I will always know how she is getting on, and if I am needed I shall come back."

Her prediction that she would go a day or two before Margaret did was not fulfilled, but, she said, " this was not because she was deceived in her foresight, but because, for what appeared to her good reasons, she changed her mind." The only ostensible reasons for her remaining after Margaret's departure (April 19th, 1914) were that Dr. Prince liked her to come and desired her to give some proof, which she had promised, regarding her real nature.

Although in 1911 she had denied that she was a spirit, nevertheless her claims regarding her own nature and powers became, from that time onwards, more and more consonant with such a belief. She maintained that when she chose she could "go away," that is, leave the body of Doris, and, when away, she said she was attending to her own affairs. Towards the end her occupation when away was said to be the preparation of the "proof" which she had promised, regarding her own nature. This proof, so often promised, never came; but she asserted that an attempt towards it had been made in the course of some experiments in automatic writing which Dr. Prince had conducted with Doris.

Just as she failed to give the proof, so also she failed to give any actual demonstration of supernormal powers. She did, however, take credit for one incident which greatly impressed Dr. Prince. One night, in the midst of a graphic and interesting dream, there was suddenly interjected into it his name, "Walter," thrilling in its distinctness, which instantly shattered the dream and woke him. Sleeping Margaret claimed that it was she who called him. She said she had been practising to see if she could speak while Real Doris was asleep without waking her. "I began," she explained, "by saying 'Papa' softly, I spoke louder and louder and she paid no attention, then I said 'Walter,' because that is a good round word, and finally I spoke it loudly." Dr. Prince could not understand how she made him hear at such a distance (25 ft.) and why it did not wake Mrs. Prince, who hears much better than he does. So he asks: "Did she make me hear by normal utterance, or did she speak to me 'herself,' as she some time ago intimated that she would try to do—that is, not through Real Doris's lips ? "

Although at this time Sleeping Margaret does not seem to have claimed that she made Dr. Prince hear otherwise than " through the ordinary channels of sense," Dr. Prince's doubt seems to have found congenial soil in her mind. Some months later, at a time when Dr. Prince was pressing her for " the proof," she began to claim that on various occasions she had tried, unsuccessfully, to make him hear at a distance. Then, once again, Dr. Prince had a dream spoilt by the irruption of the word " Walter," and again he was mystified as to the source of the sound which woke him. He canvasses the explanations which might be proposed by an outsider. These are, (1) Mrs. Prince was fooling him, (2) Mrs. Prince spoke his name in her sleep, (3) the word was uttered by the lips of the girl in her room and he heard it where he lay, (4) the girl, in normal or abnormal state, actually came to his side and uttered the word. All of these he finds good grounds for rejecting, although if the word was really uttered by anyone his third hypothesis would seem to afford the most likely explanation. Dr. Prince's slight deafness, and the 40 feet which separated him from the sleeping Doris, are more than counter-balanced by the *rapport* which existed between them. Unfortunately, however, for the whole story, Sleeping Margaret said she was not responsible for the voice on this occasion.

Unfortunately, also, Sleeping Margaret did not always speak the truth. Indeed, this failing was common to all the secondary personalities in the case. Sick Doris for a long time imposed upon Dr. Prince belief in her hysteric fabrication that she had a diseased hip, and tried also to get him to think she was a great artist. Margaret was often detected in child-like romancing, but she could not help giving notice of her inventive moods by dancing eyes and an amused manner. Sleeping Margaret at first made statements about herself which are at variance with later ones and was sometimes evasive in other matters. These departures from the truth she explained as being due to her unwillingness at first to admit her true nature and her desire to shield Real Doris when she thought Dr. Prince was getting too inquisitive. Dr. Prince was apparently not a little perturbed by the mendacity of his secondary foster-children, and he is never tired of reiterating that Real Doris was absolutely truthful.

Some time in August, 1914, it was decided that Doris should go to New York, for the purpose of taking part, as sitter, in some experiments which Dr. Hyslop was anxious to try with his medium Mrs. Chenoweth. On August 25th, in response to a request from Dr. Prince that before she went to New York she should make some declaration about herself, Sleeping Margaret made a statement in writing in which she definitely claimed that she was a spirit, and had been sent by some one higher to guard Doris when she was three years old. When she had finished her statement, Sleeping Margaret said: "There, you may believe as much of that as you like, and you may question me about it if you want to."

With the visit to New York the story of Doris Fischer enters upon a new phase. At this point Dr. Prince's record comes to an end and Dr. Hyslop takes up the tale. The atmosphere now is frankly spiritistic, and perhaps only those who have had personal experience of such phenomena as Dr. Hyslop records are justified in criticizing either his methods or his conclusions. These are far removed from the methods and conclusions of orthodox science, and also from those of many workers in Psychical Research whose opinions are entitled to respectful consideration.

Dr. Hyslop's contention is that the phenomena of secondary personality are often demonstrably due to discarnate spirits. He admits that "we shall have first to prove the existence of spirits in order to apply the hypothesis to cases of secondary personality in any form whatever." But, needless to say, he does not prove the existence of spirits. He assumes that this has been already done. He says, "I take that fact as adequately proved for all intelligent people." He appeals to the whole cumulative mass of facts on record, and he dismisses telepathy from account "as not worth serious consideration as a rival of spiritistic theories." The adoption of such an attitude in the present state of our knowledge can only alienate the sympathies of many who are ready to approach, with open minds, all the problems of Psychical Research.

CHAPTER VI

BODY AND SOUL IN MULTIPLE PERSONALITY

IN all those states of disintegration of personality that we have considered in the last three chapters there is a division or doubling of the self. Normally we know all our thoughts, our feelings, and our actions as cohering together in our one personal consciousness, but in cases of multiple personality the self may become divided or constricted, and the stream of consciousness may become discontinuous, or doubled, or multiplied. The unity of the self is broken, the parts may function alternately or concomitantly, and one part may not know the other.

If we try to put forward any hypothesis that may be explanatory of the various forms of multiple personality, we are immediately confronted by a problem which is in itself so difficult of solution that no satisfactory answer to it has yet been found. In order to explain how consciousness can be split into two, we must first be able to explain how it ever comes to be one. If we try to understand how a doubling of personality can occur, we must first understand how a unitary personality ever comes into existence.

This problem inevitably brings us to a consideration of certain ultimate questions which have loomed in the background of all our discussions of personality and its disintegrations. It brings us to a question which men have asked as long as they have been able to reflect on such matters at all, the question of the relation of the mind to the body. On the answer we give to this question will depend the views we adopt as to what constitutes the ground or basis of the unity of consciousness; and, just as there is no unanimity of opinion on the nature of the psycho-physical relation, so there is none as to what constitutes the ground or basis of the unity of consciousness.

All writers admit the importance of the part played in the consciousness of self by the sensations and feelings that accompany the activity of the bodily organs. But the problem of the psycho-physical relation is even more ultimate than that of the nature and extent of the influence which the body may have on the structure of the mind; for it is the problem of how things so disparate as mind and body can have any relation to each other at all. We may trace the ramifications of the chains of sensory neurones from the periphery to the sensory centres of the cerebral cortex, and we may understand how these centres become related one to another through the great association areas. We may even suppose that all the pathways finally converge to some hypothetical centre wherein the various sensory impulses undergo some form of physiological fusion correlative with the psychical fusion revealed on introspection. But no elaboration of histological or physiological methods will help us to bridge the gap which separates the physico-chemical processes of the nervous system from the psychical processes of knowing and feeling and willing; and no refinement of psychological investigation will reveal to us how these conscious states come to have any relation to the actions and reactions that take place between the bodily organism and the external world.

Yet the common sense of mankind has always held that there is a very close and real relation between the mind and the body. It accepts without question the causal nature of the relation. It maintains that states of mind are caused by states of body, and that states of body, especially in the form of bodily movements, are caused by states of mind. Common sense holds that mind and body interact, one with the other, and in all our conduct this belief is tacitly assumed.

If the upholder of this common-sense view be pressed to explain exactly what he means by mind and body and causation, he may lose his bearings in the mists of metaphysical speculation, but as soon as he gets back to the empirical plane, he will adhere to his belief that the sensory stimulus followed by sensation, and the will to move followed by movement, are invariable sequences of the same kind as those which in the physical world we term causal.

The more closely he studies the matter, however, the more difficult may he find it to reconcile his common-sense belief with the accepted generalizations of science. He will learn that all sensations and feelings and movements are mediated through the nervous system and that this system is built up on the plan of the reflex arcs which subserve the production of purposive movements that seem to have no conscious accompaniments. If he traces the nervous pathways concerned in the production of voluntary movements he will find that they correspond in their general form to the simple nervous arcs which subserve reflex movements at the spinal level. The greater complexity of the voluntary act is correlated with a correspondingly greater complexity in detail of the nervous arc, but since consciousness does not seem to be necessary for the performance of the reflex act, so it may not be necessary for, although it accompanies, the production of the voluntary act. The more closely he adheres to scientific method in the investigation of these physiological problems the more surely will he be forced to believe that the physical series of events which intervene between the actions of the external world upon the body and the reactions of the body upon the external world, is an unbroken series, each successive element of which is causally related to that which precedes it. So, also, if he applies the methods and generalizations of physical science to the solution of the psychological problems he will be forced to regard the psychical series as a closed and independent series which permits of no interaction with the physical series whose course it does not determine at any point or in any way.

Although there have always been some men of great eminence in science and in philosophy who have adhered to the common-sense view that mind and body interact and mutually influence one another, the great majority have long ago abandoned it and have interpreted in some other way the facts that seem to support it. Almost all the physiologists and many psychologists maintain that the activity of the nervous system is always and wholly mechanically determined. Whether the outcome of this activity be trophic changes in the bodily tissues, glandular secretions, voluntary movements, artistic creation, or moral conduct, no causal factor is to be looked for outside the series of physical and chemical changes set up in the nervous system in the course of its interaction with the rest of the physical universe. Consciousness, for the physiologist, has no causal efficacy; knowing and feeling and willing are of no account in the determination of conduct.

The doctrine that consciousness has no efficacy in initiating, guiding, maintaining, or inhibiting the series of physicochemical changes in the nervous system on which all voluntary movement immediately depends, may be held in one of two main forms. One form of the doctrine is known as automatism or epiphenomenalism, the other as psychophysical parallelism. On the epiphenomenalist view consciousness is regarded as a by-product of neural functioning. It is an effect of the nervous processes of the brain, but it never reacts upon these processes so as to modify them in any way; it is never a cause.

The epiphenomenalist view implies belief in a one-sided causal relation between mind and body, which is hard to justify. It is a view which probably has very few advocates at the present time. The other form of the doctrine, the parallelist form, is that which is most widely held, both by physiologists and psychologists. Those who adopt this view regard the mental processes and the brain processes as two closed series which go along side by side but never interact. The mental processes are not caused by the brain processes, nor do the mental processes cause the brain processes. There is merely concomitance or simultaneity of the series of the brain events and the series of mental events. But such concomitance without any causal relation is wholly unintelligible if each series is an independent and real series.

This difficulty is sometimes met by supposing that the physical series and the mental series are but different aspects or appearances of one unknown and unknowable real series. A modification of this view is that the conscious series is the real series of which the brain processes are the phenomena or appearances. On both of these views the invariable concomitance of the mental events and the brain events is explained by the postulated identity of mind and body.

The cogency of the arguments that may be brought forward in support of automatism or of psycho-physical parallelism depends on the validity of the conception that the universe is explicable in mechanistic terms. Perhaps nothing has so much conduced to the acceptance of the automaton and parallelist doctrines of the psycho-physical relation as their conformity to the greatest generalization of physical science, namely, the law of the conservation of energy. But if it should ever be shown that the generalizations of physical science are inapplicable or inadequate where vital phenomena are in question the necessity for this interpretation would in a great measure disappear.

In any case, epiphenomenalism and every form of parallelism have difficulties as great as, if not greater than, those of the common-sense view, and a time may come when psychological investigation and the speculations which may legitimately accompany it, are no longer bound or limited by a need for conformity to the laws or generalizations of physical science. If, after all, the physical and the psychical should happen to be in some way causally related, the laws of such relation should be ascertainable, and to be deterred from attempting to discover these laws by the alleged inconceivableness of any such relation may only indicate a lack of scientific imagination.

The root of the difficulties inherent in all these explanations of the nature of the psycho-physical relation may perhaps be found in the abstraction we make of mental and bodily from what is given in experience as one psycho-physical series. We separate two things which are known only together, and which may exist only together, and then we set up our abstractions against each other and ask which causes the other. If the mental series is really always a psycho-physical series, then the question whether the mental causes the physical or the physical causes the mental becomes meaningless, so soon as we cease to make the abstraction. When the psychologist speaks of the possible causal relations that may exist between mind and brain or between consciousness and conduct, he must be held to be dealing with the problem from the standpoint of naïve realism or common sense, and he must always admit that his conclusions or interpretations are subject to metaphysical revision. When he inquires into the relations of brain and mind he must do so from the common-sense point of view that the two related things have each independent reality. But whether he comes to the conclusion that they are causally related and interact one with another, or that they are not causally related and therefore cannot so interact, he will find it necessary to fall back upon some metaphysical theory in order to render either conclusion intelligible.

The bearing of the problem of the psycho-physical relation on the problems of multiple personality may be found in the light which its solution would throw on the question of what constitutes the ground or basis of the unity of consciousness; and it is possible, moreover, that a consideration of the disturbances of this unity which are met with in disorders of personality may shed some light on the problem of the psycho-physical relation.

Just as there are two main views of the nature of the psycho-physical relation, so there are two main views as to what constitutes the ground or basis of the unity of consciousness. All who accept the doctrines of automatism or psycho-physical parallelism maintain that this ground must be sought in the structural and functional continuity of the nervous system. Those, on the other hand, who hold that mind and body interact, see in the unity of consciousness a proof of the existence of some psychical subject or being, the ego, soul, or spirit; which alone can account for the fusion of the physical manifold of experience into one psychical unitary whole. We must therefore consider the explanations that may be put forward to account for the occurrence of multiple personality from these two points of view, and we must also inquire how far the explanations afforded by each of these hypotheses are adequate to account for all the observed phenomena.

The whole neuronic substratum of mental life is functionally continuous, and the psycho-physical parallelist maintains that the unity of the conscious stream which is correlated with its activity depends upon this continuity. Such an assumption implies the belief that consciousness is an aggregation or compound of elements and that its unity is of the same kind as that which we ascribe to any object in the physical world; and it is just because its unity is of this kind that it can be broken. The elements of consciousness, the sensations and feelings out of which it is compounded, have their correlates in functionally associated groups of neurones, and if the total aggregate of inter-related neurones becomes functionally discontinuous, there will be a splitting or dissociation of consciousness.

On this hypothesis we may account for the first series of dissociations described in Chapter III. In cases of the B_1 B_4 type we may suppose that one part of the disaggregated mass of neurones continues to function and to be accompanied by a stream of consciousness, while the other part becomes for a time latent. This latent portion may afterwards become functionally active while the other becomes latent. Or, as in Dr. Prince's case of BCA (if we can trust the introspection of the personality B), both portions of the disaggregated mass may continue to function so as to give rise to two co-existing streams of consciousness in one individual.

But it cannot be supposed that in these cases there is a division of the whole brain into two great aggregates of neurones, each of which contains within it all that is necessary to form the substratum of a personality. We must rather suppose that each of the alternating selves has a large neuronic substratum which is common to both. Were it not so we should have to believe that in every instance of double personality there is a dissociation of neurones so widespread and so complete that it affects every group which enters into the substratum of personality. But this is a physical impossibility. A thing cannot be split off from itself. The structure of personality as a whole has its roots in the very life processes of the bodily organism, and a *complete* dissociation of personality would mean a cessation of life.

Evidence of a common substratum in each of the alternating selves may be found both in the spheres of perception and in that of memory. The eyes with which B_4 looked out upon the world were the same as those of B_1. The feelings associated with their activity were in both cases a part of the core or nucleus of the larger self which underlay them both. The memories which had accreted around this nucleus were the same in B_1 and in B_4, in regard to all the events of Miss Beauchamp's life before the shock which led to the dissociation in 1893. Therefore, it is apparent that large groups of neurones which formed part of the substratum of B_1's personality formed part also of that of B_4's.

I have said that B_1 was the original self constricted by the dissociation of a portion of consciousness which six years afterwards reappeared as another personality, B_4. It would be equally correct to say that B_4 was the original self constricted by the dissociation of that portion of consciousness known as B_1 to which all the memories of those six years belonged. There was obviously in B_4 and in B_1 much that was common to them both and to the original Miss Beauchamp. If we try to translate these psychological divisions into neural terms, we must say that the dissociation of neurones which led to the formation of B_1 and B_4, affected only a portion of the neural substratum of Miss Beauchamp's personality. Those neurones, wherever they may be, on whose functioning the feeling of selfhood essentially depends, must be supposed to have remained unaffected. In the depths there was still a unity, although on the surface there was a splitting of the self.

Thus it would seem that double personality of the simply alternating type may be accounted for by a dissociation or splitting of some of the neurone aggregates which enter into the formation of the substratum of personality. Can the same principles be applied to explain cases of multiple personality of the co-conscious or hypnotic type? Can these be accounted for by any disruption of the systems of neurones, whose functioning is correlated with the normal waking consciousness? I do not think they can. Divisions of the self dependent on a dissociation of neurones do not know each other. They manifest as personalities alternately and the one does not remember the other. But in personalities of the co-conscious type—in the hypnotic consciousness and in hypnotic personalities—one of the phases or personalities does know the other. It may know it as part of itself, or it may know it as something so different from itself that it will not admit any identity or recognize any community of interest with it.

The knowledge of the primary personality by the secondary seems totally opposed to the view that these personalities are produced by a breach in the continuity of the systems of neurones subserving waking consciousness. A co-conscious personality's experience, in so far as it is experience of the same things as that of the primary personality, must be obtained through the same sensory channels and must be subserved by the same neuronic systems. In so far as the co-conscious experience is a different experience, or an experience of different things, it must be due to the inclusion in the functioning aggregate of a wider system of neural elements. The hypnotic consciousness, and the consciousness of hypnotic personalities, is invariably wider and more inclusive than that of the waking person, and it cannot be correlated with the functioning of a split-off portion or of a constricted remnant of the total neural substratum of consciousness.

In view of the occurrence of co-conscious personalities, we seem bound to look for some other ground of the felt unity of consciousness besides the spatial continuity of the nervous system. Such a ground may, perhaps, be found in the conception of a psycho-physical threshold which delimits, though it does not constitute, personality. Fechner introduced the conception of a psycho-physical threshold in order to account for the discontinuity of consciousness in nature as a whole, but it may also be applied to the discontinuity which is sometimes met with in the consciousness associated with one nervous system.

If we adopt Fechner's symbolic representation of a human consciousness as a wave with its crest rising over a certain threshold above which only can waking consciousness occur, we may regard this threshold as the normal threshold determined in the course of evolution by its being that at which consciousness is most useful for life. But the height of the threshold may vary under different circumstances. If it is considerably raised, the activity of large systems of neurones ceases to have any conscious accompaniment of which there is supraliminal awareness, and the extent of the field of consciousness is proportionately constricted. A permanently raised threshold will produce a constricted personality. On the other hand, if the threshold is lowered, we get an expansion of the normal consciousness. Neurone aggregates, whose activity is not intense enough to manifest in waking consciousness, become functionally continuous with the general mass of neurones now functioning at a lower threshold level. This low threshold activity is accompanied by a form of consciousness which is not the normal waking consciousness, although it may appear to be like it. It may be called the hypnotic consciousness, and is a result of a general lowering of the threshold. Any considerable lowering of the threshold will produce hypnosis, and a permanently lowered threshold will lead to the formation of a hypnotic personality.

Now it would seem that functional activity at the lower level may go on concomitantly with activity at the normal threshold, and that each form of activity may be accompanied by consciousness. But the only consciousness of which there is awareness in the waking state is that which occurs at or above the normal threshold. Yet we know that a concomitant awareness at a lower level occurs in hypnotic subjects and is claimed by hypnotic or co-conscious personalities. This secondary consciousness includes all that belongs to the primary consciousness, but it also includes much of which the primary consciousness knows nothing. And so extensive may the additional mental material be that it may greatly modify or totally alter the character pertaining to the primary personality. We may thus have two co-existing streams of consciousness manifesting as two distinct personalities through one bodily organism.

On this view co-conscious personalities would be due to a doubling of the threshold at which consciousness can appear. The threshold of waking consciousness has been determined and fixed by natural selection. A rise in the organic scale is accompanied, and to some extent conditioned, by a rise in the threshold of waking consciousness ; but consciousness which is not immediately useful for life may still occur at the older and lower thresholds. It is at the level of these lower thresholds that co-conscious personalities occur.

In attempting to construct the two series of separate types of multiple personality described in Chapter III, I included in each series a form of dissociation which seemed to be out of place there. Félida X., although in one of her states she had knowledge of the other state, was ranged along with those splittings of the self which show reciprocal amnesia. And, again, among co-conscious personalities which were shown to be not due to splittings of the self I placed Dr. Prince's case of BCA, although the co-conscious personality B describes her own formation as being due to a splitting off of the B complex from the original whole personality C. Both of these cases seem to be mixed or intermediate types, and we may consider them from one point of view as being due to a dissociation of neurone aggregates, and from another point of view as being due to changes of psycho-physical thresholds.

In Félida's case we may suppose that the dissociation was brought about by a gradual rise of the threshold of consciousness. As the threshold rose, groups of neurones would split off, one after another, from the main mass, and a gradual constriction of the personality would result. When the threshold fell suddenly to the normal level, the dissociated neurones became re-synthesized and the normal personality reappeared. This normal personality had no amnesia for the constricted self, but when the threshold again became raised, the resulting constricted self had amnesia for the normal personality.

Now it is instructive to compare the memory relations of these two phases with what occurs in hypnotic personalities. Here also the consciousness at the lower threshold has no amnesia for the consciousness at the higher threshold, while that at the higher has amnesia for that at the lower. In cases of the Félida type, the normal self has exactly the same relation to the constricted self as the hypnotic self has to the normal self in other cases. (*See* diagrams on Plate II, p. 238). In fact, the normal self *is* a hypnotic phase of the constricted self ; it is a self resulting from a lowering of the threshold. This is well seen in some other cases of this type.

When Blanche Wittmann,[1] in her constricted phase, was hypnotized by Jules Janet she became her normal self. And this normal self—a hypnotic phase of the constricted self—had, like all hypnotic phases of consciousness, knowledge of the self that had been hypnotized. But when Blanche was " awakened " into her former constricted phase she had no knowledge of her normal state, just as a person awakened from deep hypnosis has no knowledge of the events of the hypnotic state. It was also shown that the normal self of Blanche persisted as a co-consciousness when the constricted self was present as an alternating personality.

It would seem then that cases of the Félida type ought properly to be included in our second series of dissociations. A co-conscious personality, as a rule, is a hypnotic self which knows, but is not known by, the normal self. Here, however, we have a normal self which knows, but is not known by, a constricted self. But in each case we have two selves functioning concomitantly at the different threshold levels, and in each case the lower knows the higher and the higher does not know the lower.

---

[1] *See* Myers, *Human Personality*, Vol. I, p. 447.

The case of BCA was included in the second series of dissociations because the personality B claimed to be co-conscious, although the way in which the two personalities are said to have been formed allies this case to those of the B_1–B_4 type, described in the first series. In the Beauchamp case B_1 and B_4 had amnesia for each other, as they might be expected to have if they resulted from a splitting of two systems of neurones, but B of the BCA case had no amnesia for A and claimed co-consciousness. We can only suppose that here in addition to the neurone dissociation there was also some dislocation of thresholds; and we may surmise that this dislocation and doubling of the threshold was a consequence of the induction of hypnosis. But, as I have already said, it is difficult to bring this case into line with any of the forms of multiple personality hitherto recorded.

In whatever way disaggregation of neurones may be brought about we may believe that the mental dissociation which accompanies it assumes, in some circumstances, the form of a doubling of personality of the kind referred to in Chapter III as the simply alternating type. But it seems impossible to account for the inclusive knowledge of hypnotic personalities on any hypothesis which regards them as being split-off portions of the waking self. This knowledge seems more consistent with the view that these personalities are expansions rather than constrictions of the waking self. The form that the expansion takes will depend on the nature of the complexes that are available for incorporation with those of the normal personality at the hypnotic level, for these complexes may dominate the whole aggregate of complexes thus formed and stamp the resulting personality with their own peculiarities.

The explanation of this expansion by a fall in the threshold level is not hard to understand, but the conception of a " personal " consciousness occurring at this lower level concomitantly with the personal consciousness of waking life, and subserved in part by the same neuronic systems, is, it must be confessed, very hard to grasp. It may indeed have to be regarded as an illegitimate hypothesis if consciousness has no other bond of unity than the functional and structural continuity of the nervous system, and if personality has no other basis than the particular groupings of neurone systems whose activity is revealed from moment to moment in the stream of consciousness. Indeed, as we know, upholders of epiphenomenalist or parallelist views find it so difficult to account for co-consciousness of any kind that they commonly deny its occurrence altogether. But if personality entails some psychic existent beneath and larger than the stream of consciousness which we know by introspection in waking life, it is not so hard to believe that it may have more than one consciousness. It may know self and the world at the level of the normal threshold or it may know them at some lower threshold. At the one it may have experience which is of value only in relation to the life of the body. At the other it may have experience which is of value only in relation to its own life and destiny.

Consideration of such a possibility naturally brings us to the modes of explanation of the different types of multiple personality which may be put forward on the interactionist view that the unity of consciousness has as its real ground or basis some unitary psychical subject or being—the ego, soul, or spirit.

It may seem strange to bring in the world-old doctrine of the soul as an explanatory principle in the elucidation of the problems of multiple personality; for it was the discovery of the occurrence of these divisions of the self that seemed to afford the final disproof of the soul's existence. The systematic investigation of conditions of this kind began at a time when the old view of personality as a manifestation of the activity of the soul was looked upon with little respect by philosophers or psychologists. Since Hume's time the doctrine of the soul had become almost completely discredited and had ceased to be regarded as of any value in the explanation of psychological phenomena. On the foundations laid by Hume the associationist psychology arose, and during the nineteenth century it was the dominant influence in determining the attitude taken up towards the many problems of life and mind that arose with the widening of the field of neurological investigation which took place in that period.

The progress of biological and physiological research which brought to light the composite structure of the body and the mechanical principles underlying its functions, did much to make easy the abandonment of the old dogma that the mind is one and indivisible. The doctrine of the composite nature of the mind was implicit in the associationist psychology, but it was now found to be supported by many facts in physiological science and in conformity with the newly propounded hypothesis of biological evolution. When, then, people were found in whom conscious life seemed to have become split into two or more independent parts, it was naturally held to be a further proof that the old views of the unity of the mind are untenable. Such cases seemed to afford confirmation of the associationist's teaching that the mind is nothing but an aggregate of psychical elements whose holding together depends solely upon the structural and functional unity of the nervous system. During the whole period in which careful observation of double or multiple personality has been made, every fresh record has seemed more or less strongly to confirm this view; and notwithstanding the relatively small number of cases that have been investigated the facts disclosed have been made the basis of novel and far-reaching speculation in many departments of contemporary thought.

It is no part of our purpose here to examine the arguments that have been put forward for and against the soul's existence. All that is necessary is to admit that the doctrine of the soul is a legitimate hypothesis to employ in a consideration of the problem of human personality; for if it be so it is relevant to a discussion of the problems of dual and multiple personality. And this admission may the more readily be made if we remember that none of the attempts to explain mental life without the soul have been entirely successful, and that all the arguments in favour of its existence have not yet been adequately met by its opponents. We may recall the great array of names of eminent men who have advocated some dualistic hypothesis in their account of the nature of man, and that in some instances, even since Kant's time, this advocacy has taken the form of a defence of the soul. We may call to mind how William James was forced, by what he considered to be irrefutable logic, to the conception of the soul as a necessary ground of the unity of consciousness, and how he himself suspected that his final rejection of it might be due to mere prejudice brought about by his Humian and Kantian education. Finally we may take heart in the knowledge that a present-day psychologist,[1] whose scientific eminence no one will dispute, has published a work in which, after subjecting the principal arguments for and against the soul to a searching criticism, he comes to the conclusion that the soul must be regarded seriously as a scientific hypothesis and that on this hypothesis alone can all the facts of mental life be explained.

Writers who adopt the view that beneath or behind the phenomena of consciousness there exists a psychical

[1] William McDougall, *Body and Mind*.

being or soul, have been very chary of telling us clearly what they conceive to be its real nature or its attributes and powers. But perhaps this should not surprise us. We cannot always wait until we know all about a thing before we begin to talk about it, and we often have to be content with indicating in a general way the kind of functions and attributes we assume it to possess, instead of giving a clearly-cut description which would show forth all its relations.

We may, nevertheless, distinguish two main forms in which the doctrine of the soul may be held. In one form emphasis is laid upon the part played by the nervous system in all mental life—a part whose extreme importance becomes revealed with the growth of the biological sciences. The disorders of memory which are found to accompany disease or injury of the brain have been thought to indicate without doubt that whatever functions the soul may possess in its own right, memory, at least, must depend on the integrity of the nervous system. Hence some writers, while ascribing to the soul the *forms* of thought—such peculiarly psychical powers as feeling, judging, reasoning and willing, maintain that the nervous system is the real bearer of the *content* of the mind.

On the other main view the soul is held to be capable of memory independently of its relation to the nervous system, to be the source both of the forms of mental activity and of the content of the mind. If the soul be of this nature, then it must itself be regarded as the full or real personality, and we can no longer speak of personality, in this ultimate sense, as an integration, nor regard it as being liable to disintegration. Personality, as it is phenomenally or empirically known, may be an integration—a structure which has been built up and which may fall to pieces if subjected to too severe a stress ; but personality as soul may perhaps be invulnerable, at least by material things. The body is an integration, and consciousness or personality regarded as the phenomenal manifestation of the soul's activity is an integration, and each is therefore liable to disintegration ; but the soul is one and indivisible.

Some philosophers have supposed that more than one soul may be associated with one bodily organism. As Dr. McDougall says : [1] "It may be that the soul that thinks in each of us is but the chief of a hierarchy of similar beings, and that this one alone, owing to the favourable position it occupies (I do not mean spatial position), is able to actualize in any full measure its capacities for conscious activity." In this possibility he thinks we may see the explanation of some of the strange and bizarre phenomena of multiple personality.

If we ascribe to the soul only the forms of mental activity and to the nervous system the content of the mind, we may suppose that in cases of multiple personality of the simply alternating type, the soul interacts alternately with two or more functionally discontinuous systems of neurones. Or it may be supposed, as Dr. McDougall has suggested, that when the split-off portion functions as a secondary personality, a second psychic being or soul enters into relation with this portion of the nervous system, while the original soul retains its relations with the other portion. Of these two alternatives Dr. McDougall considers the latter the less improbable.

If, however, the soul is nothing more than that which exercises the forms of mental activity, and has nothing in itself which gives to it the distinguishing features of personality, this supposition would appear to be needless. A soul of this kind could interact as well with one group of the neurones to which it is related as with another. And even if we assign to the soul the content of the mind as well as the forms of mental activity, it does not seem impossible to regard these phases of the empirical self as manifestations of one and the same soul. For if the doubling of personality be due to a true splitting of a self which had its original ground of unity in the soul, the alternating selves may still be so unified during their phenomenally separate existence. However diverse or opposed these phases may appear when exhibiting as alternating personalities, the fact that they once formed part of an originally unitary self seems to get over the difficulty of regarding them now as manifestations of one and the same soul. If we must postulate a soul as the necessary ground of unity of the normal consciousness, it is perhaps more probable that in even the most pronounced cases of multiple personality there is some underlying unity, rather than that secondary personalities are manifestations of the activity of secondary and independent souls. One possible ground of such underlying unity is indeed self-evident in the fact that all the different personalities make use of one and the same bodily organism, and it does not seem impossible to believe that they are all manifestations of one and the same psychical being or soul.

---

[1] *Loc. cit.*, p. 366.

But if such diversity of character and conduct as may occur in secondary personalities which are alternately, but not simultaneously conscious, can be unified in one and the same psychical subject or soul, there would seem to be no need to postulate any second soul in cases of secondary personalities which show co-conscious activity. Yet we know that Dr. McDougall has felt bound to suggest something of this kind in order to explain the occurrence of such a personality as Sally Beauchamp. He thinks that the facts of this case can best be explained " by assuming that a normally subordinate psychic being obtains, through the weakening of the control of the normally dominant soul, an opportunity for exercising and developing its potentialities in an unusual degree." [1]

In view of the gradations that may be observed between the simplest forms of co-conscious activity and fully developed co-conscious personalities, the acceptance of this hypothesis is only compatible with belief in a plurality of psychical beings or souls in every bodily organism. And if belief in a plurality of psychical existents associated with one bodily organism be accepted on general metaphysical grounds, we must apply it consistently wherever such application is logically demanded. There seem no good grounds for Dr. McDougall's contention that " abnormal conditions of two distinct types are commonly confused together under the head of co-conscious or subconscious activity,"[1] and that a second soul or psyche is necessary in the one type and not in the other. At the extremes of the series of co-conscious phenomena the conditions do indeed seem to be very different, but it is impossible to say at what point secondary psychical beings or souls must be assumed.

---

[1] *Body and Mind*, p. 368, footnote.

If, as the interactionists maintain, we have to postulate a soul as the ground of the unity of any consciousness, we must, of course, postulate a soul as the ground of the unity of each of the consciousnesses met with in multiple personalities of the co-conscious or hypnotic type. But there is no good reason why we should not regard one and the same soul as the effective ground in each and all of the phases of consciousness occurring in one individual.

This possibility will seem the more easily conceivable if we adopt the view of the relation between mind and body outlined by M. Bergson in his philosophical writings. His conception of " pure memory " as being entirely a spiritual manifestation and totally unconnected with any brain traces, has the same practical consequences as the conception of the soul as bearing both the forms of mental activity and the content of the mind. But his view of the bodily " memory," made up of the sum of the sensorimotor systems organized by habit, as being a necessary factor in the reappearance of any recollection in consciousness, helps us to understand how secondary personalities, even when exhibiting co-consciousness, may be manifestations of the activity of a single soul. On this view the soul may be regarded as the ground of the unity of consciousness, but the structural and functional continuity of the higher nervous system is a necessary factor in the phenomenal manifestation of this unity. Although consciousness may not have its true ground of unity in the functional or structural continuity of the nervous system, its manifestation as a unity is conditioned by such continuity, and any breach of continuity in the nervous system will lead to a disruption of the unity of the personal consciousness. We may, therefore, suppose that all the cases included in our first series of dissociations—the alternating type of multiple personality—may be accounted for by a breach in the functional continuity of the system of neurones through which the soul habitually manifests.

---

[1] *Body and Mind*, p. 368.

The same principle may be applied to the interpretation of multiple personality of the co-conscious or hypnotic type, if we adopt the hypothesis of different threshold levels put forward on a previous page in explanation of the occurrence of two or more simultaneous streams of consciousness in one individual. As we have seen, the personality formed at the lowest threshold is the most inclusive and has the fullest content. The soul as bearing this content can project the " pure " memories of this personality into consciousness at this level only, because only here are the appropriate sensori-motor memories to be found. The waking consciousness cannot know these pure memories because the necessary sensori-motor memories cannot rise above the normal threshold. The soul as pure memory can manifest in consciousness only when it finds the appropriate sensori-motor memories ready to hand. As M. Bergson says : " l'esprit humain presse sans cesse avec la totalité de sa memoire contre la porte que le corps va lui entr'ouvrir," and where there is more than one threshold there is more than one door.

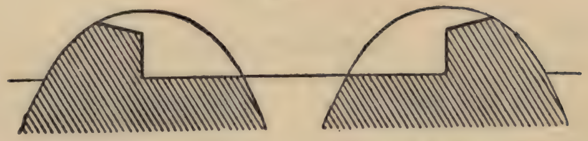
We may, therefore, regard the unity of consciousness revealed on introspection as being conditioned by the spatial continuity of neural elements and by a psychophysical threshold, above which only is the functional activity of these elements effective in this respect.

Multiple personality of the simply alternating type may be due to a structural or functional discontinuity or dissociation of neural systems. Those of the co-conscious or hypnotic type may be due to the existence of different threshold levels at which conscious processes arise. One unitary soul may persist behind all dissociations of consciousness, but it will be unable to appear as a unity and its manifestations may be fragmentary and discordant. Its unity will be masked by the imperfection of its instrument.

PLATE I.

ALTERNATING TYPES.

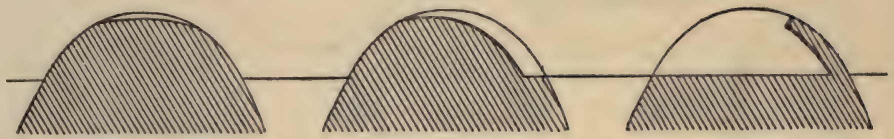
ROU.



(1)

(2: fugue state)

HANNA.

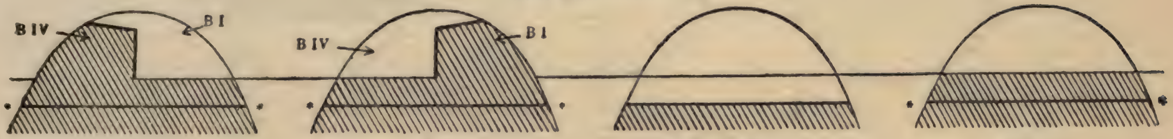


Just after accident.

The "new self."

The "old self" as an alternating personality.

MISS BEAUCHAMP.



B I.

B IV.

Sally as an alternating personality.

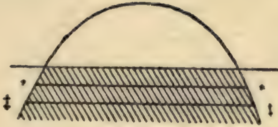
MISS B.

* * Sally's threshold

PLATE II.

CO-CONSCIOUS TYPES.

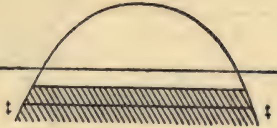
M^{ME} B.



Léonie.

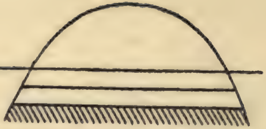
* * Léontine's threshold.

‡ ‡ Léonore's threshold.



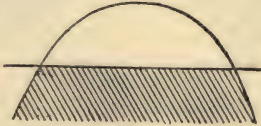
Léontine.

‡ ‡ Léonore's threshold.

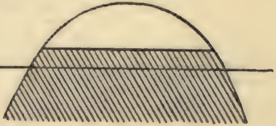


Léonore. †

FÉLIDA

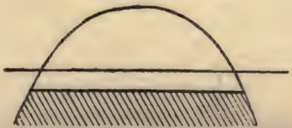


I. Normal =
Azam's Félida II.



II. Hysterical =
Azam's Félida I.

Ordinary Hypnosis.



EXPLANATION OF THE PLATES.

THE horizontal straight line passing continuously through the diagrams represents the level of the normal threshold of consciousness in each case; the shaded part below this line represents the subliminal, the unshaded part above represents the supraliminal.

In the case of the alternating types shown in Plate I, different parts of the threshold have risen, making various portions of the self subliminal at various times, and so leading to the formation of alternating personalities.

In the case of the co-conscious types shown in Plate II, the threshold rises or falls as a whole, so that some of the personalities include the others.

PLATE I.

Alternating Types.

(1) **ROU**: a case of simple alternation.

(2) **HANNA**: immediately after the accident his consciousness is almost completely submerged; later the "new self" and the "old self" alternate.

(3) **MISS BEAUCHAMP**: B I and B IV are alternating personalities the synthesis of whom forms Miss B. Sally is a co-conscious personality, analogous to those represented in Plate II.

PLATE II.

Co-conscious Types.

(1) **MADAME B.**: below the threshold of the normal personality, Léonie, are the two thresholds of the two hypnotic personalities, Léontine and Léonore.

(2) **FÉLIDA**: Azam's "secondary state" is really the normal his "primary state" being the constricted hysterical personality.

(3) **ORDINARY HYPNOSIS**: here the normal threshold is lowered, so that sensations and memories, etc., which are ordinarily subliminal become supraliminal.

INDEX

A.G.P. case, 69–102
’Ακρασία, 152
  and double personality, 155–159
Amnesia, 1, 108
  and repression, 186
  caused by desire, 157
  in fugues, 108
  in multiple personality, 116 *seq.*, 96, 103–104, 139, 142, 226
  of ideals, 166, 167
  post-hypnotic, 1, 7, 8, 90, 142, 143
Anæsthesia, hysterical, 105, 180, 186
Aristotle, 151-154
Associationist psychology, 229
Attention, 47, 52
Automatic writing,
  and dissociated states, 187
  experiments in, 18, 24, 35, 60
Automatism, 217, 220
Azam, 115–116, 181

Ballet, Gilbert, 53
Barnes, Mary, case of (*A. Wilson*), 124–126, 200
Bastian, Charlton, 53
B.C.A., case of (*Morton Prince*), 134–136, 143–144, 164, 221, 225, 227
Beauchamp, Miss, case of (*Morton Prince*), 118, 119, 122, 126, 127, 130–135, 143, 144, 198, 222, 223
Beaunis, 2, 3, 4
Bergson, 234–235
Binet, 115
Bourne, Ansel, case of (*Boris Sidis*), 111–112, 146
Bradley, F. H., 154–155
Bramwell, J. Milne, 14–16, 37–42, 44, 47, 51, 55–56

Character, 139
  changes in, 143
  disintegration of, 142
  emotional, 140
  intellectual, 140
  practical, 141
Charcot, 53, 180
Clairvoyance, 67, 204–208
  travelling, 207
Complex, 105
  dissociated, 105
  repression of, 160, 165
Co-consciousness, 133
Co-conscious personalities, 132
Consciousness, 127
  empirical, 64
  narrowing of field of, 98
  splitting of, 103 *seq.*
  stream of, 147
  transcendental, 64
  unity of, 147, 148, 220, 233–236
Conversation recitals, 173–174
Conversion (religious), 161
  (hysterical), 91–92, 98, 186

Dase, 55
Delboeuf, 3, 13, 14, 37–39, 47–48, 50

Defence reaction, 91, 185
Déjerine, 77
Disaggregation of neurones, 222, 236
Dissociation, 105, 107, 110, 111, 113, 115, 120, 126
  and alcoholic intoxication, 109, 110
  and automatic writing, 187
  and hypnotic phenomena, 190
  and hysteria, 182, 184
  and repression, 185
  and supernormal phenomena, 137
  and telepathy, 187
  capacity for, 183
  lines of cleavage, 137, 150, 199–203
  teleological character of, 184
  theories of, 180–188, 221, 233
Doris Fischer case, 168–213
  co-consciousness in, 181
  Doris, 174
  Margaret, 170, 175, 176
  Real Doris, 173, 177–178
  Sick Doris, 169, 170, 177
  Sleeping Margaret, 171, 175
  Sleeping Real Doris, 174, 178
Double Personality, 103, 123
  and ἀκρασία, 155, 159
  and fugues, 110
  and religious conversion, 161
  cases of, 111, 115, 117, 118, 121
  Jekyll and Hyde type of, 158, 159, 164
Dualistic hypothesis, 230
Du Prel, 3

Egger, Victor, 53
Epiphenomenalism, 217 *seq.*, 228

Fechner, 3, 224
Félida X., case of (*Azam*), 115, 116, 118, 122, 143, 146, 225, 226
Freud, S., 91, 98, 99, 101, 180, 181, 185
Fugues, 108–112

Galton, Sir Francis, 53
Gauss, 55
Gurney, Edmund, 3, 5, 6, 13, 42 45, 52, 55, 56, 59, 60, 62

Hanna case (*B. Sidis*), 121–123, 142
Hartmann, Eduard von, 4
Hume, 229–230
Hypnotic hyperæsthesia, 7–8
  memory, 41, 45, 46
  self, 44, 45, 127
  stratum of consciousness, 45
Hyslop, James, 168, 204, 209, 212
Hysteria, A Study in, 69
  causation of symptoms in, (*Freud*), 91; (*Janet*), 98
  dissociation in, 120, 180

Interactionism, 228

James, William, 145, 200, 230
Janet, Jules, 117, 226
Janet, Paul, 3
Janet, Pierre, 44, 98, 106, 108, 113, 117, 128–130, 180–182, 185, 186, 226
Jekyll and Hyde type of double personality, 158, 159, 164

Kant, 230

Letter-blindness, 76, 79, 81
Léonie case (*Janet*), 44, 129, 130, 144
Liégeois, 2, 3
Luther, 64

McDougall, Wm., 230, 232–234
Marcelline, R., case of (*Janet*), 117–118
Marshall, H. R., 63
Memory, 102 *seq.*
  hypnotic, 41–42
Mental conflict, 150, 155, 182, 183
Mesnet, 107

Mind and Body, causal relations of, 215–219
Moral unity, 150 *seq.*
Multiple Personality, 103–236
  amnesia in, 96, 103, 104, 116, 142, 147
  cases of, 96, 118, 124, 128, 129, 134, 168
  and doctrine of the Soul, 230
  and psycho-physical relation, 220
  spiritistic interpretation of, 168, 203, 209
  and supernormal phenomena, 203 *seq.*
  types of, 104, 117, 118, 122, 123, 236, 239
Münsterberg, H., 4
Myers, Frederic W. H., 179

Parallelism, 217 *seq.*, 228
Personality,
  alternating, 115–126, 133
  and conduct, 145
  change of, 139, 149
  child, 200
  constriction of, 104, 120
  co-conscious, 132
  double, 103, 123
  hypnotic, 129
  multiple, *v.* multiple personality
  secondary, 114, 126, 158, 198
  trance, 137
  unification of, 161
Plato, 151, 152
Post-hypnotic acts, 4, 46, 190
Prince, Morton, 118–119, 131, 134–136, 143, 164, 225
Prince, Walter F., 168–179, 188–196, 204–212, 221, 225
Proceedings, *S.P.R.* quoted, 5, 13, 37, 42, 60, 124, 125, 185, 189, 196, 200, 201
Projection, 160
Psychical Research, 178, 181, 203, 212, 213
Psycho-neural plasticity, 183
Psycho-physical parallelism, 217 *seq.*
Psycho-physical relation of mind to body, 215 *seq.*, and multiple personality, 220
Psycho-physical threshold, 223
Psycho-analysis, 91
  resistance in, 91
  and multiple personality, 181
Pure memory, 234

Rationalization, 156, 157 *seq.*
Repression, 91, 186
Retrogression to childhood, 192, 195
Rhythmic counting, 65, 66
Ribot, 4
Rou case (*Janet*), 108–110

Schiller, F. C. S., 184
Self, the, 145–150
  constriction of, 115, 120
  disintegration of, 123
  hypnotic, 41, 44, 45, 127, 226
Sentiments, 140
Shand, A., 140
Sidis, Boris, 121, 122
Somnambule, hypnotic, 1
Somnambulism, hysterical, 106
  monoideic, 113
Soul, theory of, 229–236
Specious present, 63
Stevenson, R. L., 158
Subconscious attention, 47
  calculation, 6, 13, 38, 47, 51, 52
  mentation, 3, 5, 42, 45
  perception, 56
  time-watching, 4, 34, 58
Subliminal self, 5, 45
Suggestion, 81–102
  from within, 83, 190, 192, 196, 197
  resistance to, 93

Telepathy, 187
Time appreciation, 1–68
  errors in, 61, 62
  true, 58 *seq.*
Threshold of consciousness, 224 *seq.*, 235, 236
  and amnesia, 199

Threshold of Consciousness, doubling of, 225

Visualization, 53
  and calculating faculty, 53, 54
Vivé, Louis, case of (*Bourru* and *Burot*), 124, 126, 142, 143, 147

Wilson, Albert, 125
Wish, repression of, 186, 188
Wittmann, Blanche, case of (*J. Janet*), 226
Word-blindness, 75–77, 79, 81

Printed in Great Britain by Butler & Tanner, *Frome and London*

A SELECTION FROM

MESSRS. METHUEN'S PUBLICATIONS

This Catalogue contains only a selection of the more important books published by Messrs. Methuen. A complete catalogue of their publications may be obtained on application.

Armstrong (W. W.). THE ART OF CRICKET. *Cr. 8vo.* 6s. *net.*

Bain (F. W.)—
A Digit of the Moon: A Hindoo Love Story. The Descent of the Sun: A Cycle of Birth. A Heifer of the Dawn. In the Great God's Hair. A Draught of the Blue. An Essence of the Dusk. An Incarnation of the Snow. A Mine of Faults. The Ashes of a God. Bubbles of the Foam. A Syrup of the Bees. The Livery of Eve. The Substance of a Dream. *All Fcap. 8vo.* 5s. *net.* An Echo of the Spheres. *Wide Demy.* 12s. 6d. *net.*

Baker (C. H. Collins). CROME. Illustrated. *Quarto.* £5 5s. *net.*

Balfour (Sir Graham). THE LIFE OF ROBERT LOUIS STEVENSON. *Twentieth Edition. In one Volume. Cr. 8vo. Buckram,* 7s. 6d. *net.*

Bateman (H. M.). A BOOK OF DRAWINGS. *Fifth Edition. Royal 4to.* 10s. 6d. *net.*

SUBURBIA. *Demy 4to.* 6s. *net.*

Bell (Mary I. M.). A SHORT HISTORY OF THE PAPACY. *Demy 8vo.* 21s. *net.*

Belloc (H.)—
Paris, 8s. 6d. *net.* Hills and the Sea, 6s. *net.* On Nothing and Kindred Subjects, 6s. *net.* On Everything, 6s. *net.* On Something, 6s. *net.* First and Last, 6s. *net.* This and That and the Other, 6s. *net.* Marie Antoinette, 18s. *net.*

Blackmore (S. Powell). LAWN TENNIS UP-TO-DATE. Illustrated. *Demy 8vo.* 12s. 6d. *net.*

Carpenter (G. H.). INSECT TRANSFORMATION. *Demy 8vo.* 12s. 6d. *net.*

Chandler (Arthur), D.D., late Lord Bishop of Bloemfontein—
Ara Cœli: An Essay in Mystical Theology, 5s. *net.* Faith and Experience, 5s. *net.* The Cult of the Passing Moment, 6s. *net.* The English Church and Reunion, 5s. *net.* Scala Mundi, 4s. 6d. *net.*

Chesterton (G. K.)—
The Ballad of the White Horse. All Things Considered. Tremendous Trifles. Alarms and Discursions. A Miscellany of Men. The Uses of Diversity. *All Fcap. 8vo.* 6s. *net.* Wine, Water, and Song. *Fcap. 8vo.* 1s. 6d. *net.*

Clutton-Brock (A.). WHAT IS THE KINGDOM OF HEAVEN? *Fifth Edition. Fcap. 8vo.* 5s. *net.*

ESSAYS ON ART. *Second Edition. Fcap. 8vo.* 5s. *net.*

ESSAYS ON BOOKS. *Third Edition. Fcap. 8vo.* 6s. *net.*

MORE ESSAYS ON BOOKS. *Fcap. 8vo.* 6s. *net.*

SHAKESPEARE'S HAMLET. *Fcap. 8vo.* 5s. *net.*

Conrad (Joseph). THE MIRROR OF THE SEA: Memories and Impressions. *Fourth Edition. Fcap. 8vo.* 6s. *net.*

Drever (James). THE PSYCHOLOGY OF EVERYDAY LIFE. *Cr. 8vo.* 6s. *net.*

THE PSYCHOLOGY OF INDUSTRY. *Cr. 8vo.* 5s. *net.*

Einstein (A.). RELATIVITY: THE SPECIAL AND THE GENERAL THEORY. Translated by Robert W. Lawson. *Seventh Edition. Cr. 8vo.* 5s. *net.*

SIDELIGHTS ON RELATIVITY. Two Lectures by Albert Einstein. *Cr. 8vo.* 3s. 6d. *net.*

Other Books on the **Einstein Theory.**

SPACE—TIME—MATTER. By Hermann Weyl. *Demy 8vo.* 21s. *net.*

EINSTEIN THE SEARCHER: His Work explained in Dialogues with Einstein. By Alexander Moszkowski. *Demy 8vo.* 12s. 6d. *net.*

AN INTRODUCTION TO THE THEORY OF RELATIVITY. By Lyndon Bolton. *Cr. 8vo.* 5s. *net.*

RELATIVITY AND GRAVITATION. By Various Writers. Edited by J. Malcolm Bird. *Cr. 8vo.* 7s. 6d. *net.*

RELATIVITY AND THE UNIVERSE. By Dr. Harry Schmidt. *Second Edition. Cr. 8vo.* 5s. *net.*

THE IDEAS OF EINSTEIN'S THEORY. By J. H. Thirring. *Cr. 8vo.* 5s. *net.*

RELATIVITY FOR ALL. By Herbert Dingle. *Fcap. 8vo.* 2s. *net.*

Evans (Joan). ENGLISH JEWELLERY. *Royal 4to.* £2 12s. 6d. *net.*

Fyleman (Rose). FAIRIES AND CHIMNEYS. *Fcap. 8vo. Twelfth Edition.* 3s. 6d. *net.*

THE FAIRY GREEN. *Sixth Edition. Fcap. 8vo.* 3s. 6d. *net.*

THE FAIRY FLUTE. *Second Edition. Fcap. 8vo.* 3s. 6d. *net.*

Gibbins (H. de B.). INDUSTRY IN ENGLAND: HISTORICAL OUTLINES. With Maps and Plans. *Tenth Edition. Demy 8vo.* 12*s.* 6*d. net.*

THE INDUSTRIAL HISTORY OF ENGLAND. With 5 Maps and a Plan. *Twenty-seventh Edition. Cr. 8vo.* 5*s.*

Gibbon (Edward). THE DECLINE AND FALL OF THE ROMAN EMPIRE. Edited, with Notes, Appendices, and Maps, by J. B. BURY. *Seven Volumes. Demy 8vo.* Illustrated. *Each* 12*s.* 6*d. net. Also in Seven Volumes.* Unillustrated. *Cr. 8vo. Each* 7*s.* 6*d. net.*

Glover (T. R.)—

THE CONFLICT OF RELIGIONS IN THE EARLY ROMAN EMPIRE, 10*s.* 6*d. net.* POETS AND PURITANS, 10*s.* 6*d. net.* FROM PERICLES TO PHILIP, 10*s.* 6*d. net.* VIRGIL, 10*s.* 6*d. net.* THE CHRISTIAN TRADITION AND ITS VERIFICATION (The Angus Lecture for 1912), 6*s. net.*

Grahame (Kenneth). THE WIND IN THE WILLOWS. *Twelfth Edition. Cr. 8vo.* 7*s.* 6*d. net.*

Hall (H. R.). THE ANCIENT HISTORY OF THE NEAR EAST FROM THE EARLIEST TIMES TO THE BATTLE OF SALAMIS. Illustrated. *Fifth Edition. Demy 8vo.* 21*s. net.*

Hawthorne (Nathaniel). THE SCARLET LETTER. With 31 Illustrations in Colour, by HUGH THOMSON. *Wide Royal 8vo.* 31*s.* 6*d. net.*

Holdsworth (W. S.). A HISTORY OF ENGLISH LAW. *Seven Volumes. Demy 8vo. Each* 25*s. net.*

Inge (W. R.). CHRISTIAN MYSTICISM. (The Bampton Lectures of 1899.) *Fifth Edition. Cr. 8vo.* 7*s.* 6*d. net.*

Jenks (E.). AN OUTLINE OF ENGLISH LOCAL GOVERNMENT. *Fifth Edition, revised. Cr. 8vo.* 5*s. net.*

A SHORT HISTORY OF ENGLISH LAW: FROM THE EARLIEST TIMES TO THE END OF THE YEAR 1911. *Second Edition, revised. Demy 8vo.* 12*s.* 6*d. net.*

Julian (Lady) of Norwich. REVELATIONS OF DIVINE LOVE. Edited by GRACE WARRACK. *Seventh Edition. Cr. 8vo.* 5*s. net.*

Keats (John). POEMS. Edited, with Introduction and Notes, by E. DE SELINCOURT. With a Frontispiece in Photogravure. *Fourth Edition. Demy 8vo.* 12*s.* 6*d. net.*

Kidd (Benjamin). THE SCIENCE OF POWER. *Ninth Edition. Cr. 8vo.* 7*s.* 6*d. net.*

SOCIAL EVOLUTION. *Demy 8vo.* 8*s.* 6*d. net.*

A PHILOSOPHER WITH NATURE. *Second Edition. Cr. 8vo.* 7*s.* 6*d. net.*

Kipling (Rudyard). BARRACK-ROOM BALLADS. 215*th Thousand. Cr. 8vo Buckram,* 7*s.* 6*d. net. Also Fcap. 8vo. Cloth,* 6*s. net; leather,* 7*s.* 6*d. net.*

Also a Service Edition. *Two Volumes. Square Fcap. 8vo. Each* 3*s. net.*

THE SEVEN SEAS. 157*th Thousand. Cr. 8vo. Buckram,* 7*s.* 6*d. net. Also Fcap. 8vo. Cloth,* 6*s. net; leather,* 7*s.* 6*d. net.*

Also a Service Edition. *Two Volumes. Square Fcap. 8vo. Each* 3*s. net.*

THE FIVE NATIONS. 126*th Thousand. Cr. 8vo. Buckram,* 7*s.* 6*d. net. Also Fcap. 8vo. Cloth,* 6*s. net; leather,* 7*s.* 6*d. net.*

Also a Service Edition. *Two Volumes. Square Fcap, 8vo. Each* 3*s. net.*

DEPARTMENTAL DITTIES. 102*nd Thousand. Cr. 8vo. Buckram,* 7*s.* 6*d. net. Also Fcap. 8vo. Cloth,* 6*s. net; leather,* 7*s.* 6*d. net.*

Also a Service Edition. *Two Volumes. Square Fcap. 8vo. Each* 3*s. net.*

THE YEARS BETWEEN. 95*th Thousand. Cr. 8vo. Buckram,* 7*s.* 6*d. net. Fcap. 8vo. Cloth,* 6*s. net; leather,* 7*s.* 6*d. net.*

Also a Service Edition. *Two Volumes. Square Fcap. 8vo. Each* 3*s. net.*

HYMN BEFORE ACTION. Illuminated. *Fcap. 4to.* 1*s.* 6*d. net.*

RECESSIONAL. Illuminated. *Fcap. 4to.* 1*s.* 6*d. net.*

TWENTY POEMS FROM RUDYARD KIPLING. 313*th Thousand. Fcap. 8vo.* 1*s. net.*

Knox (E. V. G.). ('**Evoe**' of *Punch.*) PARODIES REGAINED. Illustrated by GEORGE MORROW. *Fcap. 8vo.* 5*s. net.*

Lamb (Charles and Mary). THE COMPLETE WORKS. Edited by E. V. LUCAS. *A New and Revised Edition in Six Volumes. With Frontispieces. Fcap. 8vo. Each* 6*s. net.*

The volumes are:—

I. MISCELLANEOUS PROSE. II. ELIA AND THE LAST ESSAY OF ELIA. III. BOOKS FOR CHILDREN. IV. PLAYS AND POEMS. V. and VI. LETTERS.

THE ESSAYS OF ELIA. With an Introduction by E. V. LUCAS, and 28 Illustrations by A. GARTH JONES. *Fcap. 8vo.* 5*s. net.*

Lankester (Sir Ray). SCIENCE FROM AN EASY CHAIR. Illustrated. *Thirteenth Edition. Cr. 8vo.* 7*s.* 6*d. net.*

SCIENCE FROM AN EASY CHAIR. *Second Series.* Illustrated. *Third Edition. Cr. 8vo.* 7*s.* 6*d. net.*

DIVERSIONS OF A NATURALIST. Illustrated. *Third Edition. Cr. 8vo.* 7*s.* 6*d. net.*

SECRETS OF EARTH AND SEA. *Cr. 8vo.* 8*s.* 6*d. net.*

Lodge (Sir Oliver). MAN AND THE UNIVERSE: A STUDY OF THE INFLUENCE OF THE ADVANCE IN SCIENTIFIC KNOWLEDGE UPON OUR UNDERSTANDING OF CHRISTIANITY. *Ninth Edition. Cr. 8vo.* 7*s.* 6*d. net.*

THE SURVIVAL OF MAN: A Study in Unrecognized Human Faculty. *Seventh Edition. Cr. 8vo. 7s. 6d. net.*

MODERN PROBLEMS. *Cr. 8vo. 7s. 6d. net.*

RAYMOND; or Life and Death. Illustrated. *Twelfth Edition. Demy 8vo. 10s. 6d. net.*

Loring (F. H.). ATOMIC THEORIES. *Demy 8vo. 12s. 6d. net.*

Lucas (E. V.)—

The Life of Charles Lamb, *2 vols.*, 21s. *net.* A Wanderer in Holland, 10s. 6*d. net.* A Wanderer in London, 10s. 6*d. net.* London Revisited, 10s. 6*d. net.* A Wanderer in Paris, 10s. 6*d. net* and 6s. *net.* A Wanderer in Florence, 10s. 6*d. net.* A Wanderer in Venice, 10s. 6*d. net.* The Open Road: A Little Book for Wayfarers, 6s. 6*d. net.* The Friendly Town: A Little Book for the Urbane, 6s. *net.* Fireside and Sunshine, 6s. *net.* Character and Comedy, 6s. *net.* The Gentlest Art: A Choice of Letters by Entertaining Hands, 6s. 6*d. net.* The Second Post, 6s. *net.* Her Infinite Variety: A Feminine Portrait Gallery, 6s. *net.* Good Company: A Rally of Men, 6s. *net.* One Day and Another, 6s. *net.* Old Lamps for New, 6s. *net.* Loiterer's Harvest, 6s. *net.* Cloud and Silver, 6s. *net.* A Boswell of Baghdad, and other Essays, 6s. *net.* 'Twixt Eagle and Dove, 6s. *net.* The Phantom Journal, and other Essays and Diversions, 6s. *net.* Specially Selected: A Choice of Essays, 7s. 6*d. net.* Urbanities. Illustrated by G. L. Stampa, 7s. 6*d. net.* The British School: An Anecdotal Guide to the British Painters and Paintings in the National Gallery, 6s. *net.* Roving East and Roving West: Notes gathered in India, Japan, and America. 5s. *net.* Edwin Austin Abbey, R.A. *2 vols.* £6 6s. *net.* Vermeer of Delft, 10s. 6*d. net.*

Meldrum (D. S.). REMBRANDT'S PAINTINGS. *Wide Royal 8vo. £2 2s. net.*

Methuen (A.). AN ANTHOLOGY OF MODERN VERSE. With Introduction by Robert Lynd. *Seventh Edition. Fcap. 8vo. 6s. net. Thin paper, leather, 7s. 6d. net.*

McDougall (William). AN INTRODUCTION TO SOCIAL PSYCHOLOGY. *Seventeenth Edition. Cr. 8vo. 8s. 6d. net.*

BODY AND MIND: A History and a Defence of Animism. *Fifth Edition. Demy 8vo. 12s. 6d. net.*

NATIONAL WELFARE AND NATIONAL DECAY. *Cr. 8vo. 6s. net.*

Maeterlinck (Maurice)—

The Blue Bird: A Fairy Play in Six Acts 6s. *net.* Mary Magdalene: A Play in Three Acts, 5s. *net.* Death, 3s. 6*d. net.* Our Eternity, 6s. *net.* The Unknown Guest, 6s. *net.* Poems, 5s. *net.* The Wrack of the Storm, 6s. *net.* The Miracle of St. Anthony: A Play in One Act, 3s. 6*d. net.* The Burgomaster of Stilemonde: A Play in Three Acts, 5s. *net.* The Betrothal; or, The Blue Bird Chooses, 6s. *net.* Mountain Paths, 6s. *net.* The Story of Tyltyl, 21s. *net.*

Milne (A. A.)—

Not that it Matters. *Fcap. 8vo.* 6s. *net.* If I May. *Fcap. 8vo.* 6s. *net.*

Nevill (Ralph). MAYFAIR AND MONTMARTRE. *Demy 8vo. 15s. net.*

Norwood (Gilbert). EURIPIDES AND SHAW: With other Essays. *Cr. 8vo. 7s. 6d. net.*

Osborn (E. B.). LITERATURE AND LIFE. *Cr. 8vo. 7s. 6d. net.*

Oxenham (John)—

Bees in Amber; A Little Book of Thoughtful Verse. *Small Pott 8vo. Stiff Boards.* 2s. *net.* All's Well; A Collection of War Poems. The King's High Way. The Vision Splendid. The Fiery Cross. High Altars: The Record of a Visit to the Battlefields of France and Flanders. Hearts Courageous. All Clear! *All Small Pott 8vo. Paper,* 1s. 3*d. net; cloth boards,* 2s. *net.* Winds of the Dawn. Gentlemen—The King, 2s. *net.*

Petrie (W. M. Flinders). A HISTORY OF EGYPT. Illustrated. *Six Volumes. Cr. 8vo. Each 9s. net.*

Vol. I. From the 1st to the XVIth Dynasty. *Ninth Edition.* (10s. 6*d. net.*)

Vol. II. The XVIIth and XVIIIth Dynasties. *Sixth Edition.*

Vol. III. XIXth to XXXth Dynasties. *Second Edition.*

Vol. IV. Egypt under the Ptolemaic Dynasty. J. P. Mahaffy. *Second Edition.*

Vol. V. Egypt under Roman Rule. J. G. Milne. *Second Edition.*

Vol. VI. Egypt in the Middle Ages. Stanley Lane Poole. *Second Edition.*

SYRIA AND EGYPT, FROM THE TELL EL AMARNA LETTERS. *Cr. 8vo. 5s. net.*

EGYPTIAN TALES. Translated from the Papyri. First Series, ivth to xiith Dynasty. Illustrated. *Third Edition. Cr. 8vo. 5s. net.*

EGYPTIAN TALES. Translated from the Papyri. Second Series, xviiith to xixth Dynasty. Illustrated. *Second Edition. Cr. 8vo. 5s. net.*

Pollitt (Arthur W.). THE ENJOYMENT OF MUSIC. *Second Edition. Cr. 8vo. 5s. net.*

Price (L. L.). A SHORT HISTORY OF POLITICAL ECONOMY IN ENGLAND FROM ADAM SMITH TO ARNOLD TOYNBEE. *Eleventh Edition. Cr. 8vo. 5s. net.*

Selous (Edmund)—
Tommy Smith's Animals. Tommy Smith's Other Animals. Tommy Smith at the Zoo. Tommy Smith again at the Zoo. *Each* 2*s*. 9*d*. Jack's Insects, 3*s*. 6*d*. Jack's Other Insects, 3*s*. 6*d*.

Shelley (Percy Bysshe). POEMS. With an Introduction by A. Clutton-Brock and Notes by C. D. Locock. *Two Volumes. Demy* 8*vo*. £1 1*s*. *net*.

Smith (Adam). THE WEALTH OF NATIONS. Edited by Edwin Cannan. *Two Volumes. Third Edition. Demy* 8*vo*. £1 10*s*. *net*.

Smith (S. C. Kaines). LOOKING AT PICTURES. Illustrated. *Second Edition. Fcap*. 8*vo*. 6*s*. *net*.

Spens (Janet). ELIZABETHAN DRAMA. *Cr*. 8*vo*. 6*s*. *net*.

Stevenson (R. L.). THE LETTERS OF ROBERT LOUIS STEVENSON. Edited by Sir Sidney Colvin. *A New Re-arranged Edition in four volumes. Fourth Edition. Fcap*. 8*vo*. *Each* 6*s*. *net*.

Surtees (R. S.)—
Handley Cross, 7*s*. 6*d*. *net*. Mr. Sponge's Sporting Tour, 7*s*. 6*d*. *net*. Ask Mamma: or, The Richest Commoner in England, 7*s*. 6*d*. *net*. Jorrocks's Jaunts and Jollities, 6*s*. *net*. Mr. Facey Romford's Hounds, 7*s*. 6*d*. *net*. Hawbuck Grange; or, The Sporting Adventures of Thomas Scott, Esq., 6*s*. *net*. Plain or Ringlets? 7*s*. 6*d*. *net*. Hillingdon Hall, 7*s*. 6*d*. *net*.

Tilden (W. T.). THE ART OF LAWN TENNIS. Illustrated. *Fourth Edition. Cr*. 8*vo*. 6*s*. *net*.

Tileston (Mary W.). DAILY STRENGTH FOR DAILY NEEDS. *Twenty-seventh Edition. Medium* 16*mo*. 3*s*. 6*d*. *net*.

Turner (W. J.). MUSIC AND LIFE. *Cr*. 8*vo*. 7*s*. 6*d*. *net*.

Underhill (Evelyn). MYSTICISM. A Study in the Nature and Development of Man's Spiritual Consciousness. *Ninth Edition. Demy* 8*vo*. 15*s*. *net*.

Vardon (Harry). HOW TO PLAY GOLF. Illustrated. *Fifteenth Edition. Cr*. 8*vo*. 5*s*. 6*d*. *net*.

Wade (G. W.). NEW TESTAMENT HISTORY. *Demy* 8*vo*. 18*s*. *net*.

Waterhouse (Elizabeth). A LITTLE BOOK OF LIFE AND DEATH. *Twenty-first Edition. Small Pott* 8*vo*. 2*s*. 6*d*. *net*.

Wells (J.). A SHORT HISTORY OF ROME. *Eighteenth Edition*. With 3 Maps. *Cr*. 8*vo*. 5*s*.

Wilde (Oscar). THE WORKS OF OSCAR WILDE. *Fcap*. 8*vo*. *Each* 6*s*. 6*d*. *net*.
i. Lord Arthur Savile's Crime and the Portrait of Mr. W. H. ii. The Duchess of Padua. iii. Poems. iv. Lady Windermere's Fan. v. A Woman of No Importance. vi. An Ideal Husband. vii. The Importance of Being Earnest. viii. A House of Pomegranates. ix. Intentions. x. De Profundis and Prison Letters. xi. Essays. xii. Salome, A Florentine Tragedy, and La Sainte Courtisane. xiii. A Critic in Pall Mall. xiv. Selected Prose of Oscar Wilde. xv. Art and Decoration.

A HOUSE OF POMEGRANATES. Illustrated. *Cr*. 4*to*. 21*s*. *net*.

Yeats (W. B.). A BOOK OF IRISH VERSE. *Fourth Edition. Cr*. 8*vo*. 7*s*. *net*.

Part II.—A Selection of Series

The Antiquary's Books

Demy 8*vo*. 10*s*. 6*d*. *net each volume*

With Numerous Illustrations

Ancient Painted Glass in England. Archæology and False Antiquities. The Bells of England. The Brasses of England. The Castles and Walled Towns of England. Celtic Art in Pagan and Christian Times. Churchwardens' Accounts. The Domesday Inquest. English Church Furniture. English Costume. English Monastic Life. English Seals. Folk-Lore as an Historical Science. The Gilds and Companies of London. The Hermits and Anchorites of England. The Manor and Manorial Records. The Mediæval Hospitals of England. Old English Instruments of Music. Old English Libraries. Old Service Books of the English Church. Parish Life in Mediæval England. The Parish Registers of England. Remains of the Prehistoric Age in England. The Roman Era in Britain. Romano-British Buildings and Earthworks. The Royal Forests of England. The Schools of Mediæval England. Shrines of British Saints.

The Arden Shakespeare

General Editor, R. H. CASE

Demy 8vo. 6s. net each volume

An edition of Shakespeare in Single Plays; each edited with a full Introduction, Textual Notes, and a Commentary at the foot of the page.

Classics of Art

Edited by Dr. J. H. W. LAING

With numerous Illustrations. Wide Royal 8vo

The Art of the Greeks, 21s. *net.* The Art of the Romans, 16s. *net.* Chardin, 15s. *net.* Donatello, 16s. *net.* George Romney, 15s. *net.* Ghirlandaio, 15s. *net.* Lawrence, 25s. *net.* Michelangelo, 15s. *net.* Raphael, 15s. *net.* Rembrandt's Etchings, 31s. 6*d.* *net.* Rembrandt's Paintings, 42s. *net.* Tintoretto, 16s. *net.* Titian, 16s. *net.* Turner's Sketches and Drawings, 15s. *net.* Velasquez, 15s. *net.*

The 'Complete' Series

Fully Illustrated. Demy 8vo

The Complete Airman, 16s. *net.* The Complete Amateur Boxer, 10s. 6*d.* *net.* The Complete Association Footballer, 10s. 6*d.* *net.* The Complete Athletic Trainer, 10s. 6*d.* *net.* The Complete Billiard Player, 10s. 6*d.* *net.* The Complete Cook, 10s. 6*d.* *net.* The Complete Foxhunter, 16s. *net.* The Complete Golfer, 12s. 6*d.* *net.* The Complete Hockey-Player, 10s. 6*d.* *net.* The Complete Horseman, 15s. *net.* The Complete Jujitsuan. *Cr. 8vo.* 5s. *net.* The Complete Lawn Tennis Player, 12s. 6*d.* *net.* The Complete Motorist, 10s. 6*d.* *net.* The Complete Mountaineer, 16s. *net.* The Complete Oarsman, 15s. *net.* The Complete Photographer, 12s. 6*d.* *net.* The Complete Rugby Footballer, on the New Zealand System, 12s. 6*d.* *net.* The Complete Shot, 16s. *net.* The Complete Swimmer, 10s. 6*d.* *net.* The Complete Yachtsman, 18s. *net.*

The Connoisseur's Library

With numerous Illustrations. Wide Royal 8vo. £1 11s. 6d. net each volume

English Coloured Books. Etchings. European Enamels. Fine Books. Glass. Goldsmiths' and Silversmiths' Work. Illuminated Manuscripts. Ivories. Jewellery. Mezzotints. Miniatures. Porcelain. Seals. Wood Sculpture.

Handbooks of Theology

Demy 8vo

The Doctrine of the Incarnation, 15s. *net.* A History of Early Christian Doctrine, 16s. *net.* Introduction to the History of Religion, 12s. 6*d.* *net.* An Introduction to the History of the Creeds, 12s. 6*d.* *net.* The Philosophy of Religion in England and America, 12s. 6*d.* *net.* The XXXIX Articles of the Church of England, 15s. *net.*

Health Series

Fcap. 8vo. 2s. 6d. net

The Baby. The Care of the Body. The Care of the Teeth. The Eyes of our Children. Health for the Middle-Aged. The Health of a Woman. The Health of the Skin. How to Live Long. The Prevention of the Common Cold. Staying the Plague. Throat and Ear Troubles. Tuberculosis. The Health of the Child, 2s. *net.*

The Library of Devotion

Handy Editions of the great Devotional Books, well edited
With Introductions and (where necessary) Notes
Small Pott 8vo, cloth, 3s. net and 3s. 6d. net

Little Books on Art

With many Illustrations. Demy 16mo. 5s. net each volume

Each volume consists of about 200 pages, and contains from 30 to 40 Illustrations, including a Frontispiece in Photogravure

ALBRECHT DÜRER. THE ARTS OF JAPAN. BOOKPLATES. BOTTICELLI. BURNE-JONES. CELLINI. CHRISTIAN SYMBOLISM. CHRIST IN ART. CLAUDE. CONSTABLE. COROT. EARLY ENGLISH WATER-COLOUR. ENAMELS. FREDERIC LEIGHTON. GEORGE ROMNEY. GREEK ART. GREUZE AND BOUCHER. HOLBEIN. ILLUMINATED MANUSCRIPTS. JEWELLERY. JOHN HOPPNER. Sir JOSHUA REYNOLDS. MILLET. MINIATURES. OUR LADY IN ART. RAPHAEL. RODIN. TURNER. VANDYCK. WATTS.

The Little Guides

With many Illustrations by E. H. NEW and other artists, and from photographs

Small Pott 8vo. 4s. net to 7s. 6d. net.

Guides to the English and Welsh Counties, and some well-known districts

The main features of these Guides are (1) a handy and charming form; (2) illustrations from photographs and by well-known artists; (3) good plans and maps; (4) an adequate but compact presentation of everything that is interesting in the natural features, history, archæology, and architecture of the town or district treated.

The Little Quarto Shakespeare

Edited by W. J. CRAIG. With Introductions and Notes

Pott 16mo. 40 Volumes. Leather, price 1s. 9d. net each volume
Cloth, 1s. 6d. net.

Plays

Fcap. 8vo. 3s. 6d. net

MILESTONES. Arnold Bennett and Edward Knoblock. *Tenth Edition.*

IDEAL HUSBAND, AN. Oscar Wilde. *Acting Edition.*

KISMET. Edward Knoblock. *Fourth Edition.*

THE GREAT ADVENTURE. Arnold Bennett. *Fifth Edition.*

TYPHOON. A Play in Four Acts. Melchior Lengyel. English Version by Laurence Irving. *Second Edition.*

WARE CASE, THE. George Pleydell.

GENERAL POST. J. E. Harold Terry. *Second Edition.*

THE HONEYMOON. Arnold Bennett. *Third Edition.*

Sports Series

Illustrated. Fcap. 8vo

All About Flying, 3s. *net*. Alpine Ski-ing at All Heights and Seasons, 5s. *net*. Cross Country Ski-ing, 5s. *net*. Golf Do's and Dont's, 2s. 6d. *net*. Quick Cuts to Good Golf, 2s. 6d. *net*. Inspired Golf, 2s. 6d. *net*. Driving. Approaching, Putting, 2s. *net*. Golf Clubs and How to Use Them, 2s. *net*. The Secret of Golf for Occasional Players, 2s. *net*. Lawn Tennis, 3s. *net*. Lawn Tennis Do's and Dont's, 2s. *net*. Lawn Tennis for Young Players, 2s. 6d. *net*. Lawn Tennis for Club Players, 2s. 6d. *net*. Lawn Tennis for Match Players, 2s. 6d. *net*. Hockey, 4s. *net*. How to Swim, 2s. *net*. Punting, 3s. 6d. *net*. Skating, 3s. *net*. Wrestling, 2s. *net*.

The Westminster Commentaries

General Editor, WALTER LOCK

Demy 8vo

The Acts of the Apostles, 12s. 6d. *net*. Amos, 8s. 6d. *net*. I Corinthians, 8s. 6d. *net*. Exodus, 15s. *net*. Ezekiel, 12s. 6d. *net*. Genesis, 16s. *net*. Hebrews, 8s. 6d. *net*. Isaiah, 16s. *net*. Jeremiah, 16s. *net*. Job. 8s. 6d. *net*. The Pastoral Epistles, 8s. 6d. *net*. The Philippians, 8s. 6d. *net*. St. James, 8s. 6d. *net*. St. Matthews, 15s. *net*. St. Luke, 15s. *net*.

Methuen's Two-Shilling Library

Cheap Editions of many Popular Books

Fcap. 8vo

PART III.—A SELECTION OF WORKS OF FICTION

Bennett (Arnold)—
Clayhanger, 8s. *net*. Hilda Lessways, 8s. 6d. *net*. These Twain. The Card. The Regent: A Five Towns Story of Adventure in London. The Price of Love. Buried Alive. A Man from the North. The Matador of the Five Towns. Whom God hath Joined. A Great Man: A Frolic. Mr. Prohack. *All 7s. 6d. net*.

Birmingham (George A.)—
Spanish Gold. The Search Party. Lalage's Lovers. The Bad Times. Up, the Rebels. The Lost Lawyer. *All 7s. 6d. net*. Inisheeny, 8s. 6d. *net*.

Burroughs (Edgar Rice)—
Tarzan of the Apes, 6s. *net*. The Return of Tarzan, 6s. *net*. The Beasts of Tarzan, 6s. *net*. The Son of Tarzan, 6s. *net*. Jungle Tales of Tarzan, 6s. *net*. Tarzan and the Jewels of Opar, 6s. *net*. Tarzan the Untamed, 7s. 6d. *net*. A Princess of Mars, 6s. *net*. The Gods of Mars, 6s. *net*. The Warlord of Mars, 6s. *net*. Thuvia, Maid of Mars, 6s. *net*. Tarzan the Terrible, 2s. 6d. *net*. The Mucker, 6s. *net*. The Man without a Soul, 6s. *net*.

Conrad (Joseph)—
A Set of Six, 7s. 6d. *net*. Victory: An Island Tale. *Cr. 8vo*. 9s. *net*. The Secret Agent: A Simple Tale. *Cr. 8vo*. 9s. *net*. Under Western Eyes. *Cr. 8vo*. 9s. *net*. Chance. *Cr. 8vo*. 9s. *net*.

Corelli (Marie)—
A Romance of Two Worlds, 7s. 6d. *net*. Vendetta: or, The Story of One Forgotten, 8s. *net*. Thelma: A Norwegian Princess, 8s. 6d. *net*. Ardath: The Story of a Dead Self, 7s. 6d. *net*. The Soul of Lilith, 7s. 6d. *net*. Wormwood: A Drama of Paris, 8s. *net*. Barabbas: A Dream of the World's Tragedy, 8s. *net*. The Sorrows of Satan, 7s. 6d. *net*. The Master-Christian, 8s. 6d. *net*. Temporal Power: A Study in Supremacy, 6s. *net*. God's Good Man: A Simple Love Story, 8s. 6d. *net*. Holy Orders: The Tragedy of a Quiet Life, 8s. 6d. *net*. The Mighty Atom, 7s. 6d. *net*. Boy: A Sketch, 7s. 6d. net. Cameos, 6s. *net*. The Life Everlasting, 8s. 6d. *net*. The Love of Long Ago, and Other Stories, 8s. 6d. *net*. Innocent, 7s. 6d. *net*. The Secret Power: A Romance of the Time, 7s. 6d. *net*.

Hichens (Robert)—
Tongues of Conscience, 7s. 6d. *net*. Felix: Three Years in a Life, 7s. 6d. *net*. The Woman with the Fan, 7s. 6d. *net*. The Garden of Allah, 8s. 6d. *net*. The Call of the Blood, 8s. 6d. *net*. The Dweller on the Threshold, 7s. 6d. *net*. The Way of Ambition, 7s. 6d. *net*. In the Wilderness, 7s. 6d. *net*.

Hope (Anthony)—
A Change of Air. A Man of Mark. Simon Dale. The King's Mirror. The Dolly Dialogues. Mrs. Maxon Protests. A Young Man's Year. Beaumaroy Home from the Wars. *All 7s. 6d. net.*

Jacobs (W. W.)—
Many Cargoes, 5s. *net.* Sea Urchins, 5s. *net* and 3s. 6*d. net.* A Master of Craft, 6s. *net.* Light Freights, 5s. *net.* The Skipper's Wooing, 5s. *net.* At Sunwich Port, 5s. *net.* Dialstone Lane, 5s. *net.* Odd Craft, 5s. *net.* The Lady of the Barge, 5s. *net.* Salthaven, 5s. *net.* Sailors' Knots, 5s. *net.* Short Cruises, 6s. *net.*

London (Jack)— WHITE FANG. *Ninth Edition. Cr. 8vo. 7s. 6d. net.*

Lucas (E. V.)—
Listener's Lure: An Oblique Narration, 6s. *net.* Over Bemerton's: An Easy-going Chronicle, 6s. *net.* Mr. Ingleside, 6s. *net.* London Lavender, 6s. *net.* Landmarks, 6s. *net.* The Vermilion Box, 6s. *net.* Verena in the Midst, 8s. 6*d. net.* Rose and Rose, 6s. *net.*

McKenna (Stephen)—
Sonia: Between Two Worlds, 8s. *net.* Ninety-Six Hours' Leave, 7s. 6*d. net.* The Sixth Sense, 6s. *net.* Midas & Son, 8s. *net.*

Malet (Lucas)—
The History of Sir Richard Calmady: A Romance. 10s. *net.* The Carissima. The Gateless Barrier. Deadham Hard. *All 7s. 6d. net.* The Wages of Sin. 8s. *net.* Colonel Enderby's Wife, 7s. 6*d. net.*

Mason (A. E. W.). CLEMENTINA. Illustrated. *Ninth Edition. Cr. 8vo. 7s. 6d. net.*

Milne (A. A.)—
The Day's Play. The Holiday Round. Once a Week. *All Cr. 8vo. 7s. 6d. net.* The Sunny Side. *Cr. 8vo.* 6s. *net.* The Red House Mystery. *Cr. 8vo.* 6s. *net.*

Oxenham (John)—
Profit and Loss. The Song of Hyacinth, and Other Stories. The Coil of Carne. The Quest of the Golden Rose. Mary All-Alone. *All 7s. 6d. net.*

Parker (Gilbert)—
Mrs. Falchion. The Translation of a Savage. When Valmond came to Pontiac: The Story of a Lost Napoleon. An Adventure of the North: The Last Adventures of 'Pretty Pierre.' The Seats of the Mighty. The Battle of the Strong: A Romance of Two Kingdoms. The Trail of the Sword. Northern Lights. *All 7s. 6d. net.*

Phillpotts (Eden)—
Children of the Mist. The River. Demeter's Daughter. The Human Boy and the War. *All 7s. 6d. net.*

Rohmer (Sax)—
Tales of Secret Egypt. The Orchard of Tears. The Golden Scorpion. *All 7s. 6d. net.* The Devil Doctor. The Mystery of Dr. Fu-Manchu. The Yellow Claw. *All 3s. 6d. net.*

Swinnerton (F.) Shops and Houses. September. The Happy Family. On the Staircase. Coquette. The Chaste Wife. *All 7s. 6d. net.* The Merry Heart, The Casement, The Young Idea. *All 6s. net.*

Wells (H. G.). BEALBY. *Fourth Edition. Cr. 8vo. 7s 6d. net.*

Williamson (C. N. and A. M.)—
The Lightning Conductor: The Strange Adventures of a Motor Car. Lady Betty across the Water. It Happened in Egypt. The Shop Girl. The Lightning Conductress. My Friend the Chauffeur. Set in Silver. The Great Pearl Secret. The Love Pirate. *All 7s. 6d. net.* Crucifix Corner. 6s. *net.*

Methuen's Two-Shilling Novels

Cheap Editions of many of the most Popular Novels of the day

Write for Complete List

Fcap. 8vo

6/12

Fl. 4-4-56

MN Mitchell, Thomas Walker
M Medical psychology and psychical research.
595270

University of Toronto Library

DO NOT
REMOVE
THE
CARD
FROM
THIS
POCKET

Acme Library Card Pocket
LOWE-MARTIN CO. LIMITED